MITSUBISHI

PC VIEWING/COMMUNICATION SOFTWARE

OPTION FOR DIGITAL RECORDER

MODEL

DX-PC200 Ver.1.0

OPERATION MANUAL

—for Windows® 2000—
—for Windows® XP—

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Microsoft and Windows are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
(The official name of Windows is Microsoft Windows operating system.)
Compact Flash is trademark of SanDisk.
This software is partly based on the work of the Independent JPEG Group.
All other company names and product names appearing herein are the property of their respective owners.
• Windows 2000 is an abbreviation of Microsoft Windows 2000 Professional.
• Windows XP is an abbreviation of Microsoft Windows XP.

The program is included in this product, which is to watch the image of data recorded by supported recorder on the personal computer. This program is developed based on a regular business licensing agreement of Kakadu Software.

1 Introduction

DX-PC200 is application software to replay video data recorded by Mitsubishi's digital recorder on Windows 2000 or Windows XP.

In combination with DVR series having network function, you can set and operate the recorder and load recorded images and the latest live image from the recorder using the network function.

1.1 Features

- DVR status monitoring and Event monitoring by list of connected recorder
- Simultaneous playback during recording, loading of the latest live image, section download
- Time search, alarm list display/search
- Simultaneous monitoring of several recorders, screen layout saving function
- Remote control and remote setting of the digital recorder
- PTZ camera control
- Alarm notification receiving function
- Playback of data recorded in the "FSM1," "FSM2," or "FSM3" format, playback of data copied on other media (to the extent supported by Windows Explorer)
- Playback of data recorded in the FSMS format on SCSI copy media
- Printing by a Windows-supported printer
- Bookmark function
- Audio replay function (available in certain conditions)
- Collective conversion into general image formats (such as JPEG and AVI)

1.2 System requirements

- IBM PC/AT-compatible with Intel Pentium processor or Intel Celeron processor 2.4 GHz or faster (3 GHz or faster is recommended.)
- Windows 2000 or Windows XP
- 256 MB or more physical memory (512 MB or more is recommended.)
- At least XGA(1024×768) resolution (SXGA（1280×1024） or more is recommended.)
- At least 24-bit color video adaptor and monitor (With lower bit color video adaptor and monitor, image display may be subjected to restrictions.)
- At least 500 MB of free hard disk space for installation
- Free hard disk space for the swap depending on the swap size for collective conversion
- Preinstalled DirectX 8.0 or later
- Windows-supported sound adaptor, such as SoundBlaster (Necessary when the sound function is

used.)

- NIC that operates correctly under the condition satisfying the above-mentioned requirements (Necessary when the network function is used.)

Notice

- Operation of this software is not always guaranteed in any environment that satisfies the above-mentioned system requirements.

1.3 Compatible digital recorders

Recorders supporting playback of copied data and the network function

- DX-TL5000E series
- DX-TL4516E series • DX-TL4509E series
- DX-TL2500E series
- DX-TL950E series

Recorders supporting only the network function

- DX-NT400E series

Notice

- This manual describes operations of 16-ch digital recorder. Therefore, some descriptions herein referring to the number of channels may be inconsistent with actual operations of your recorder.
- The screen design of this software is changed according to the screen resolution of PC used. This manual uses the screen design of SXGA (1280*1024). The button shape and button arrangement are slightly different. However, the icon designs and functions have no difference.

2 Setup

2.1 Setup (Installation)

To install this software, start the Setup Launch.exe file contained in the DX-PC200 folder of this CD. Follow the instructions displayed on the screen, and the setup will automatically start.

The default setup location is C: ¥Program Files¥DXPC200.

Before installing this software, uninstall any DX-PC** series software already existing in your personal computer (“PC”).

2.2 Uninstallation

To uninstall this software, select Control Panel > ADD/Remove Programs > DX-PC200. Alternatively, select the DX-PC200 UnInstall command from the Start menu and follow the instructions displayed on the screen.

2.3 Start and exit

Upon completion of the setup procedure, the icon of DX-PC200 is added to the Start menu. Select this icon to start this software. When logged in by Application Login window, the MainView screen will appear.

To exit this software, click [X] in the upper right corner of the main window.

3. Three main screens

The DX-PC200 has three main function screens. Switch these screens as required. Each screen enables remote monitoring of various scenes.

Main View screen

Single View screen

Multi View screen

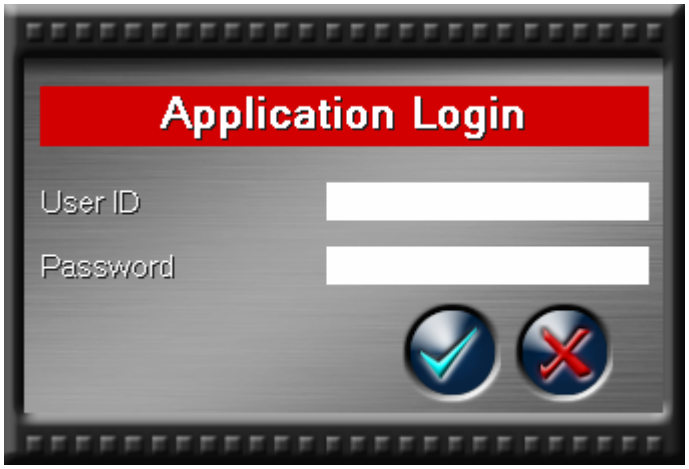
Depending on the current screen or operation condition, some of the buttons displayed on the screens may not be valid. These invalid buttons are dimmed and cannot be clicked.

Most of the buttons necessary for operation are icons. When you position the mouse pointer on one of these icon buttons, the name of the button and some sentences will appear to describe the function of the button, or to describe why the button is invalid. If it is not necessary to display these sentences, change the condition set in the “Control Description” area while referring to Sec. 4.7.1 “General”. Note that these sentences appear on the uppermost window and panel only.

DVR button
You can register/edit/delete the DVR to be used.
The selected DVR, while being connected, cannot be edited/deleted.

3.1. DX-PC200 login screen

Select “DX-PC200” from the start menu. When the DX-PC200 is activated, the Application Login screen will appear as shown in the following figure. This screen is the login screen for the DX-PC200, and differs from the login screen for each recorder. For the user name registered on this login screen, the DX-PC200 will store various settings (Sec. 4.9 Grouping function, etc.) in the memory. In addition, functions will be restricted for each user registered on this login screen (Sec. 4.7.1 User function restriction).



Enter the user name and the password, and then click the button to log in the DX-PC200.

If it is not necessary to log in, click the button.

When a first user name is entered, the message shown in the following figure will appear. Click [Yes] to register the manager entered user name in the DX-PC200.

Notice

You can log in the DX-PC200 without entering the user name and the password. In this case, however, the DX-PC200 will judge that a space is entered as the user name and the password. For this reason, after that, a space cannot be registered as a new user name or a new password.

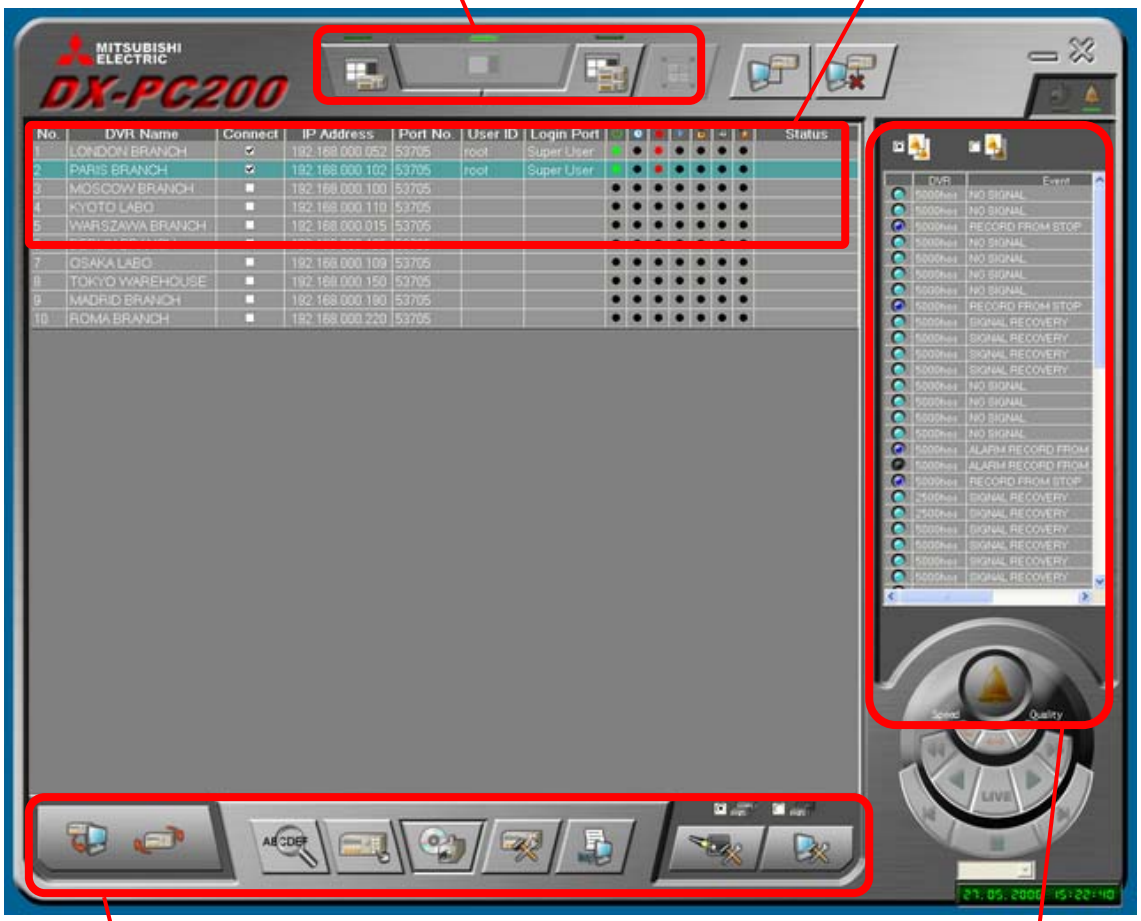
3.2. Main View screen

When you log in the DX-PC200, the Main View screen will appear. The Main View screen shown in the following figure is in the communication status (the DX-PC200 is connected to the communication line).

On this screen, the registered recorders are listed. Use this screen to control the connection conditions and operation conditions of all the recorders. Click an item to sort the list. Drag an item to adjust the width of the item.

Screen selector buttons
(Refer to Sec. 3.2.1.)

Recorder list
(Refer to Sec. 3.2.6.)



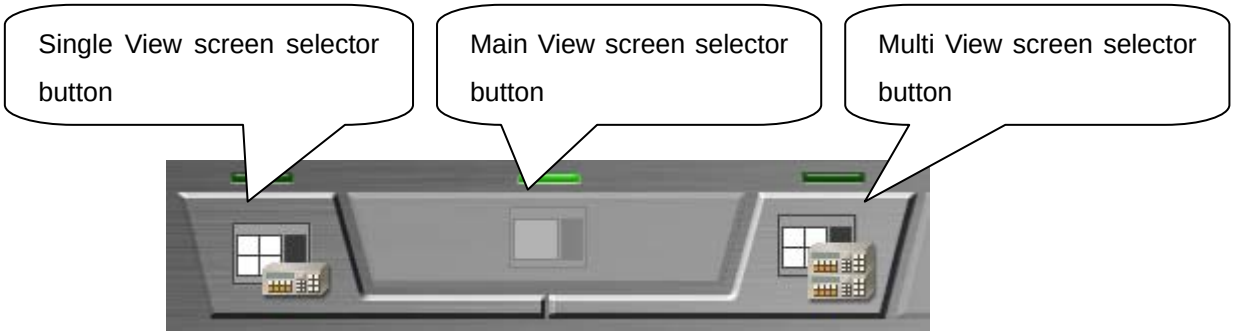
Operation buttons
(Refer to Sec. 3.2.2 through Sec. 3.2.5.)

Event list
(Refer to Sec. 3.2.7.)

3.2.1 Screen selector buttons

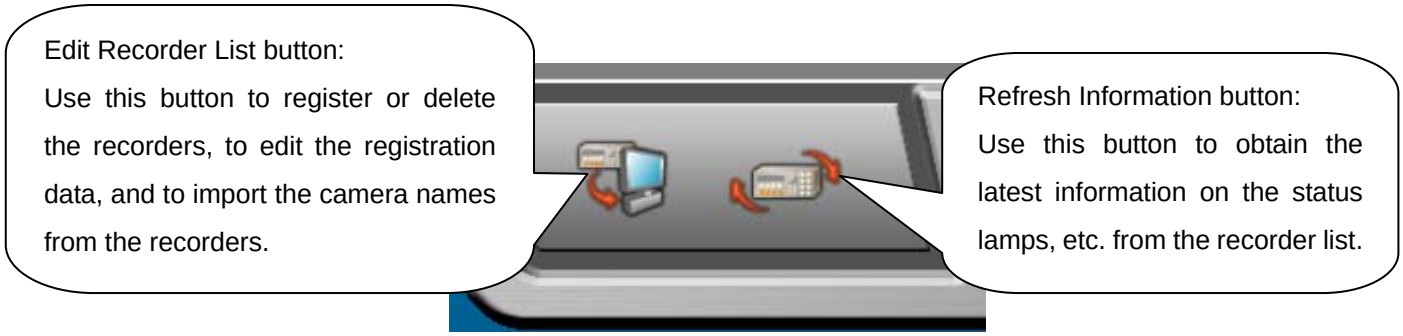
At the upper center of the Main View screen, there are three screen selector buttons. Use these buttons to go to the desired screen.

On the Single View screen and the Multi View screen, these buttons are also displayed at the same position.



3.2.2 Recorder list control buttons

At the lower left section of the Main View screen, there are recorder list control buttons. Use these buttons to control the recorder list.


Edit Recorder List button:
Use this button to register or delete the recorders, to edit the registration data, and to import the camera names from the recorders.
Refresh Information button:
Use this button to obtain the latest information on the status lamps, etc. from the recorder list.

Notice

To import camera titles, log in to the recorder under the user ID having the Regist authority and check that the setting port of the recorder is not being used by other user.

When camera titles are imported, the camera titles that were registered at the time of recorder registration are overwritten.

3.2.3 Recorder operation buttons

At the lower center of the Main View screen, there are recorder operation buttons. Use these buttons to operate each recorder.

Starting from the left, the Search button, Recorder Control button, Data Manager button, Recorder Settings button, and System Log List button are displayed on the screen.

- Search button

  When you want to search a recorder, select the recorder from the list, and then click this button. The Search panel will be opened.

  For a detailed description of the search function, refer to Sec. 4.2.

- Recorder Control button

  When you want to remotely control a recorder, select the recorder from the list, and then click this button. The Recorder Control panel will be opened. The front design of the corresponding recorder is adopted for the recorder control panel.

  For a detailed description of recorder control, refer to Sec. 4.5.

- Data Manager button

  Use this button to display the data manager. The data manager can download the recorder image data, can schedule the data downloading operation, and can control/regenerate the downloaded data.

  For a detailed description of the data manager, refer to Sec. 4.8.

- Recorder Settings button

  When you want to edit the menu data for a recorder, select the recorder from the list, and then click this button. The Recorder Settings panel will be opened.

  For a detailed description of recorder settings, refer to Sec. 4.4.

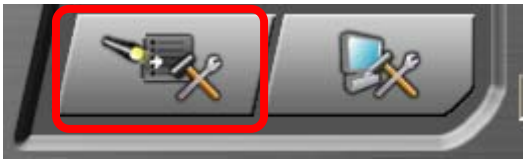
• System Log List button

When you want to look through the logged data of a recorder stored in the system log list, select the recorder from the list, and then click this button. The System Log List panel will be opened.

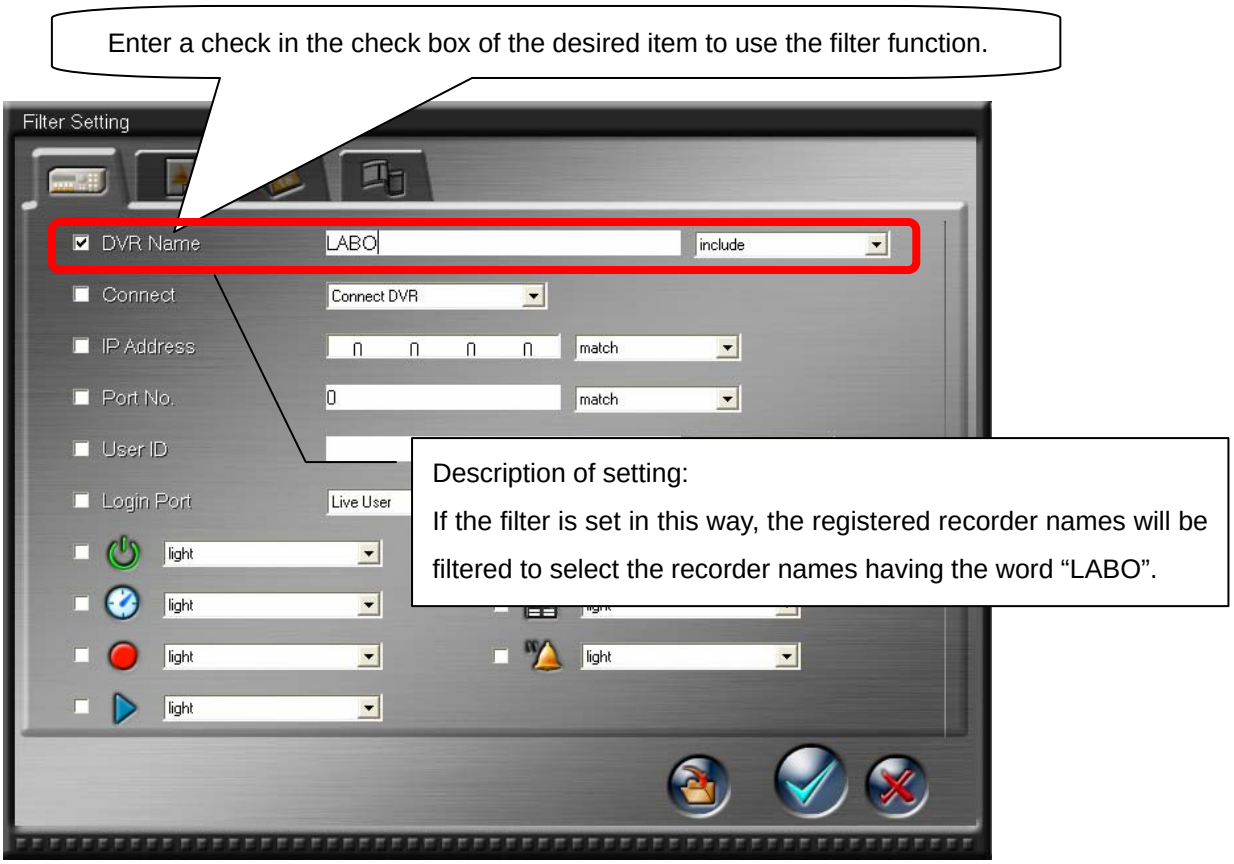
For a detailed description of the system log list, refer to Sec. 4.6.

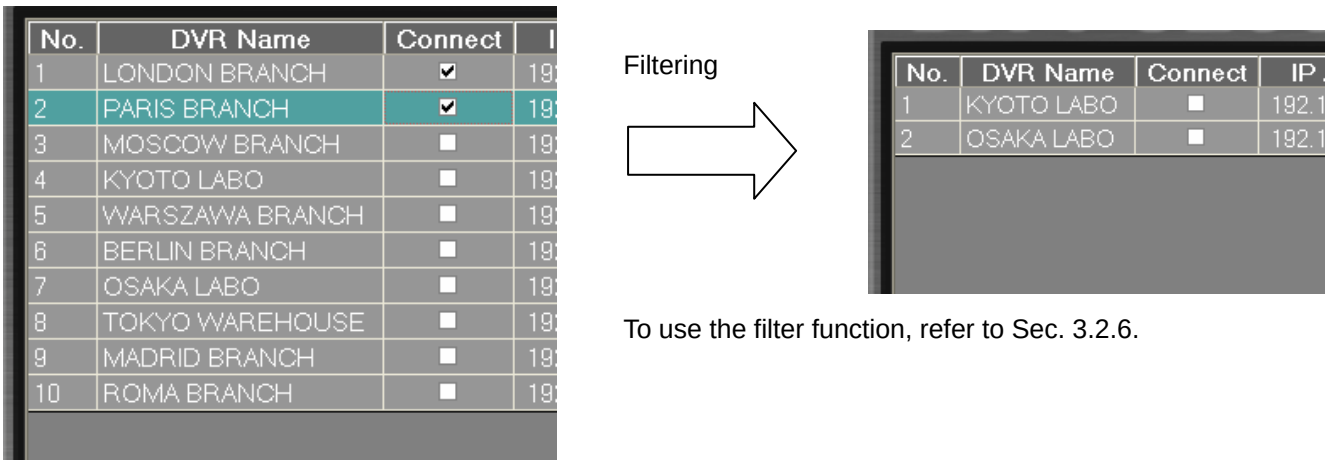
3.2.4 Filter Settings button

The Filter Settings button is at the lower right side of the Main View screen. Use this button to set various filters.



When the Filter Settings button is clicked, the panel shown in the following figure will be opened, and you can set the filter data for the recorder list, etc. To set the filter data for the event list, download data list, or copy data list, click the corresponding tab to switch the list.





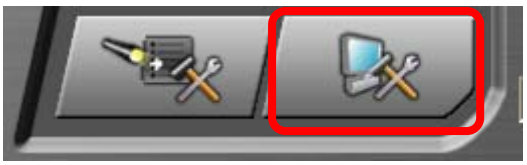
To use the filter function, refer to Sec. 3.2.6.

3.2.5 Options button

The Options button is at the lower section of the Main View screen. Use this button to display the Options panel.

Using the Options panel, you can set the detailed operations of the DX-PC200.

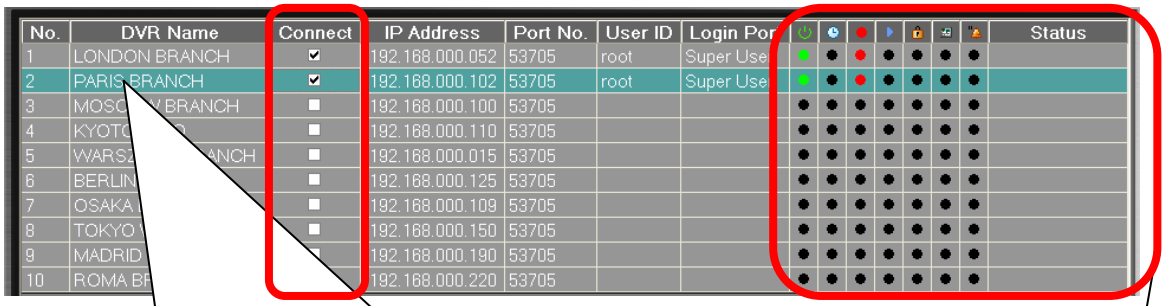
For a detailed description of options, refer to Sec. 4.7.



3.2.6 Recorder list

The connection status, operation status, etc. of each recorder are displayed on the recorder list.

Recorder connection box:
Enter a check in this box to connect the DX-PC200 to the recorder. When connected to the recorder, the status lamps, etc. will be enabled. Erase the check from the box to disconnect the recorder from the DX-PX200.



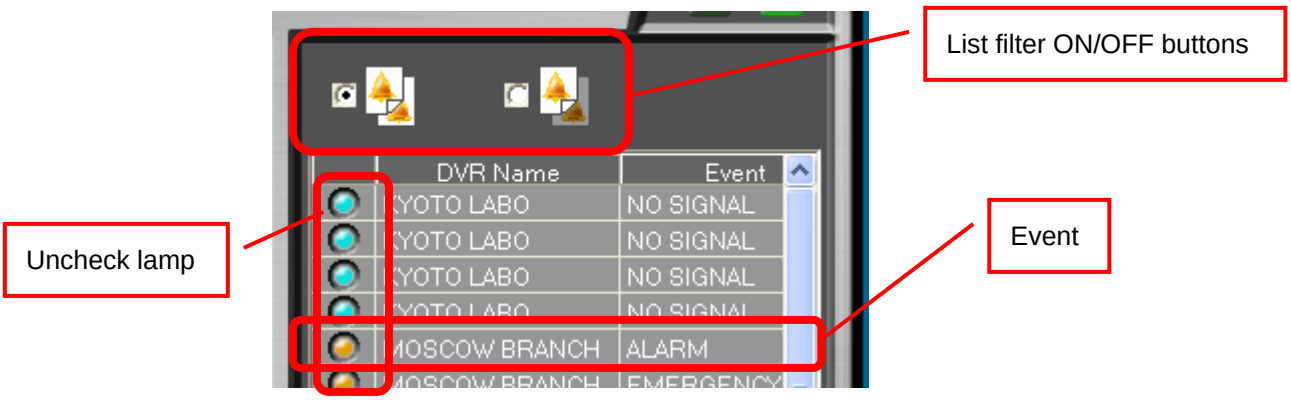
The selected recorders are displayed in this way. Double-click a recorder line to go to the Single View screen.

Recorder status lamp and status indication area:
The recorder operation status is indicated in this area using lamps and characters. Some of the lamps can be turned on and off when the lamps are double-clicked.

There are radio buttons at the lower right section of the list. Use these radio buttons to enable or disable the filter function. For a detailed description of the filter function, refer to Sec. 3.2.4.

3.2.7 Event list

The DX-PC200 receives the IP issued events sent from the recorders to display the event list (refer to Sec 5.9).

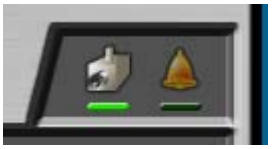


When the DX-PC200 receives an event, the bell displayed under the list will sound.

Click the bell to stop sounding the bell.

On the Single View and Multi View screens, click the bell to switch the list between the camera list and the event list.

Click the camera icon at the upper right section of the list to switch the event list to the camera list. Click the event list icon to switch the camera list to the event list.



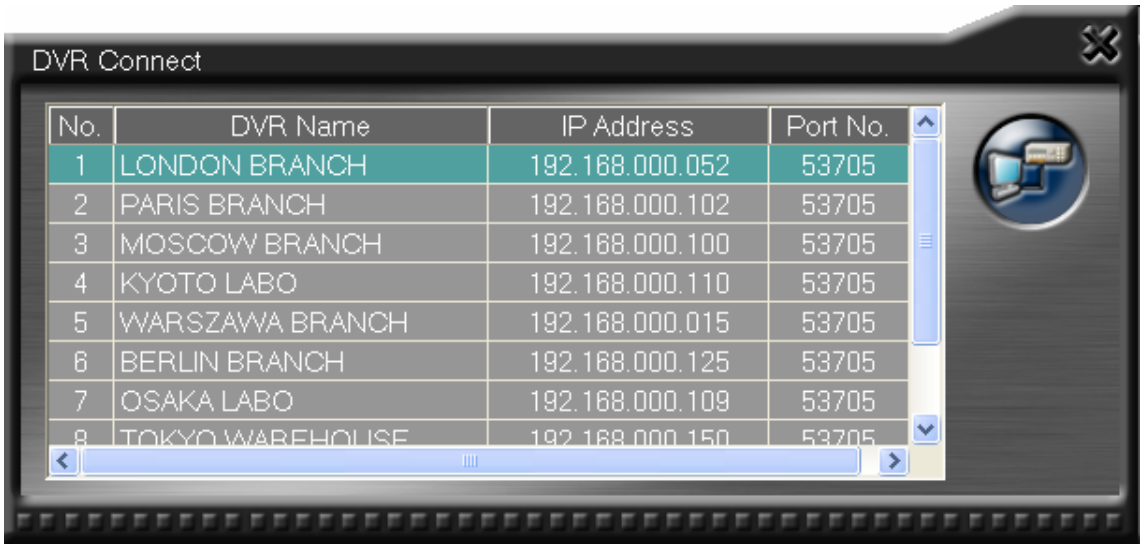
Left :Camera list icon

Right :Event list icon

3.2.8 Connect button and Disconnect button

Use these buttons to connect or disconnect each recorder to the DX-PC200. The Connect/Disconnect panel will appear.

When the Connect button is pressed, the DX-PC200 will select disconnected recorders from all the registered recorders to display the disconnected recorders only.



From the displayed list of disconnected recorders, select a recorder you want to connect, and then click the Connect button on the right side of the list to connect the recorder.

- The Connect panel will also appear if a recorder line is double-clicked on the Main View screen. In this case, the double-clicked recorder will be selected as the recorder to be connected. So just click the Connect button to connect the recorder.
- While displaying a recorder on the Single View screen, if you connect the DX-PC200 to another recorder, the currently displayed recorder will be switched to the newly connected recorder.
- While displaying a recorder on the Multi View screen, if you connect the DX-PC200 to a currently non-displayed recorder, the newly connected recorder (currently non-displayed recorder) will be added to the camera list, but will not be displayed on the Multi View screen.

To display the newly connected recorder, refer to Sec. 5.3.4.

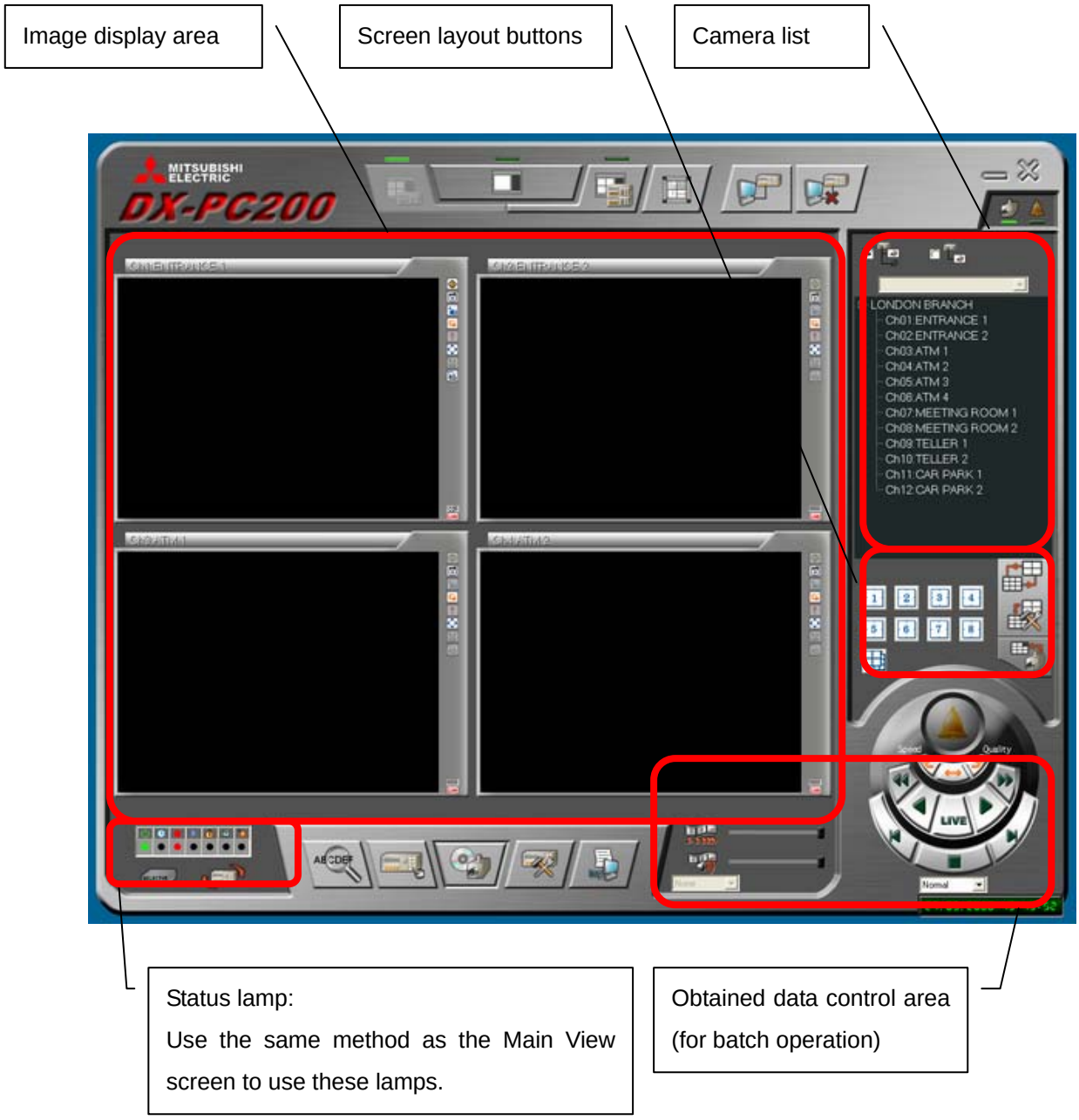
When the Disconnect button is pressed, the DX-PC200 will select connected recorders from all the registered recorders to display the connected recorders only. From the displayed list of connected recorders, select a recorder you want to disconnect, and then click the Disconnect button on the right side of the list to disconnect the recorder.

3.3. Single View screen

Select one of the following methods to go to the Single View screen.

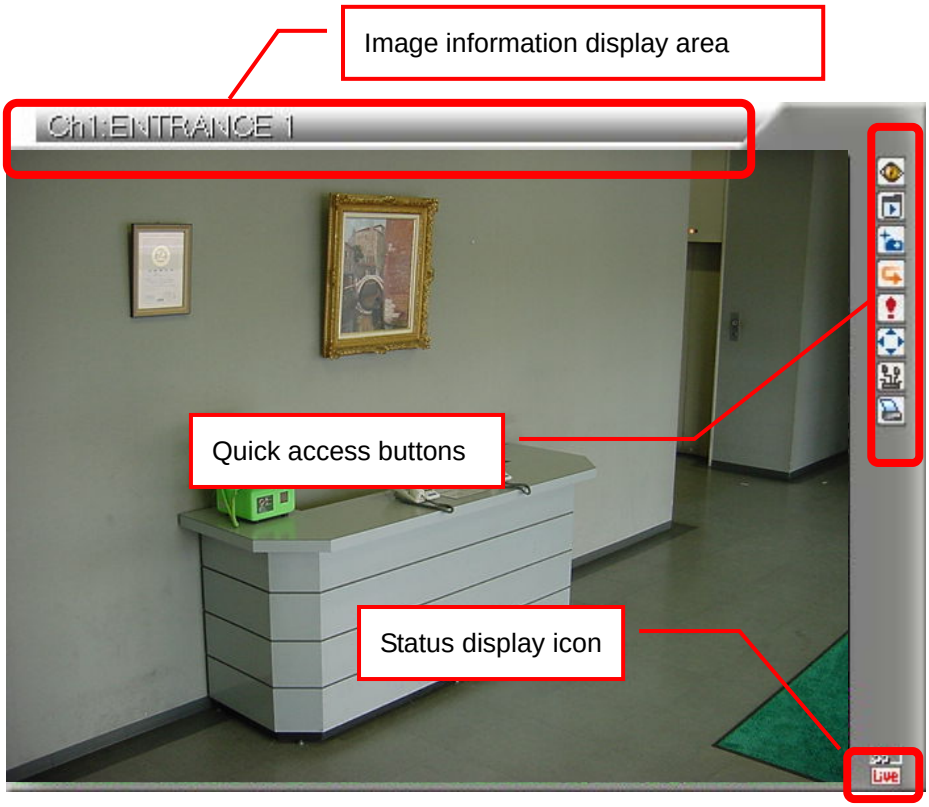
- On the Main View or Multi View screen, click the Single View screen selector button.
- On the Main View screen, select a recorder from the list, and double-click the selected recorder.
- On the Main View screen, click the image search button, and carry out search by specifying the time, etc. to obtain the image. (If the image is not obtained, the DX-PC200 will not go to the Single View screen.)

The Single View screen displays the live image or the regenerated image of only one recorder. On this screen, you can carry out high-level control using the PTZ camera, ModeOut terminal, etc.

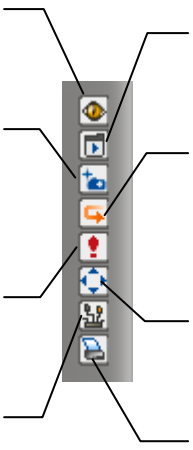


3.3.1 Camera window

Each camera image is displayed in the camera window. At the upper section of this window, there is an image information display area, and one of the registered camera names will be displayed in this area. When a regenerated image of recorder data is displayed in the camera window, the date and time of data recording will be also displayed. On the right side of the camera window, there are various quick access buttons and window status display icon. The quick access buttons and status display icon can be deleted using options (refer to Sec. 4.7).

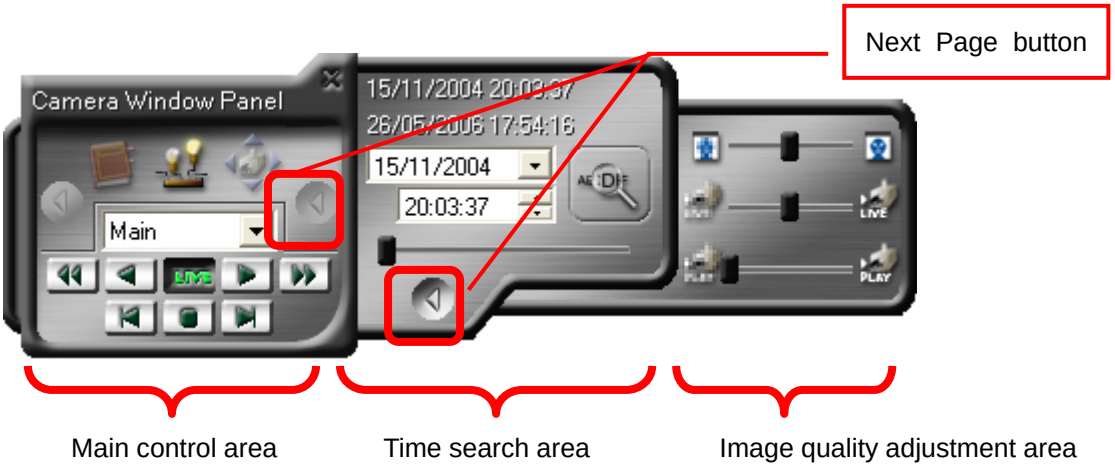


Camera Window Maxim button (Sec. 4.10.1): Displays the image of the specified camera only.	Camera Window Panel button (Sec. 3.3.2): Displays the Camera Window panel.
Scene Capture button (Sec. 4.10.2): Stores the currently displayed image in the specified place.	Recent Play button (Sec. 4.10.3): Displays the last scene you have seen just now.
NET Alarm Input button (Sec. 4.10.4): Sends out the alarm signal to the recorder.	PTZ Camera Control button (Sec. 4.10.5): Displays the PTZ Camera Control panel.
MODE OUT Control button (Sec. 4.10.6): Opens the ModeOut Control panel.	Print button (Sec. 4.10.7): Prints the image currently displayed.



3.3.2 Camera Window panel

On the right side of the Camera window, click the Camera Window Panel button to display the Camera Window panel. If the Camera Window Panel button is not displayed due to the optional setting, click the image display area of the Camera window to display the Camera Window panel.



The main control area is displayed first. Use the main control area to switch the image displayed on the Camera window between the live image and the regenerated image, to register bookmarks for search operation, to call up the ModeOut Control panel, and to call up the PTZ Control panel.

Click the Next Page button to go to the time search area. In the time search area, set the time using the calendar, dropdown menu, and slide bar, and then click the Search button to carry out search for the specified time.

Click the Next Page button again to go the image quality adjustment area. There are three slide bars in this area. The upper slide bar is for adjustment of the decoding level. The center slide bar is for adjustment of the live image. The lower slide bar is for adjustment of the regenerated image. The function of each slide bar and the effectiveness of each bar are described below:

Decoding level adjustment bar:

Use this bar to adjust the image level. To adjust the image level, the fineness of the image to be displayed will be adjusted for the data received by the PC (personal computer). The decoding level will not be affected by the size of the data sent from the recorder, but will be greatly affected by the capability of the PC. Determine the decoding level considering the capability of the PC and the required image quality (fineness of the image).

Live image quality adjustment bar:

Use this bar to adjust the quality of the live images. To adjust the quality of the live images, the data size will be set for the live image data to be sent from the recorder. The live image quality should be adjusted mainly depending on the bandwidth of the communication line. To display high-quality images, the data size should be increased. So the image updating speed will be reduced. The quality of the live images can be set for each camera.

Regenerated image quality adjustment bar

Use this bar to adjust the quality of the regenerated images of recorder data. The quality of the regenerated images will be adjusted in the same way as the quality of the live images. The quality of the regenerated images can be set for each camera. For some types of recorders, however, adjustment of the regenerated image quality may not be possible.

3.3.3 Camera list

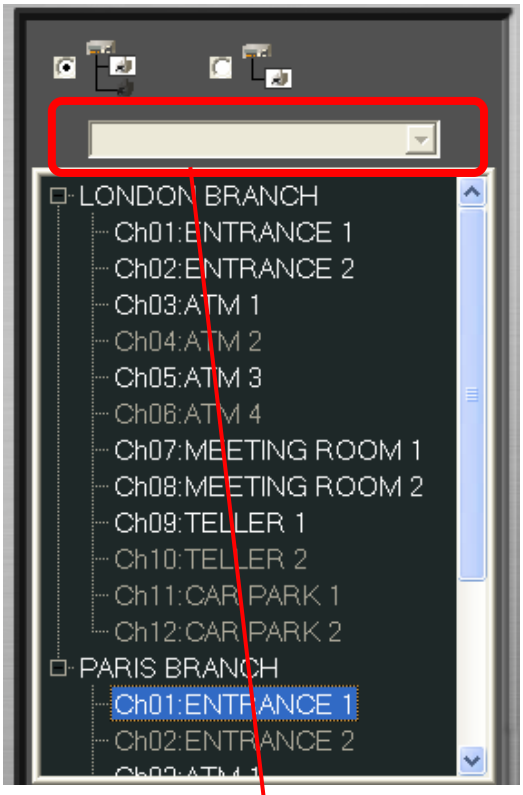
On the camera list, the statuses of the currently displayed cameras are displayed. For the camera list, there are two display modes: the “all cameras” display mode and the “grouping” display mode. Use the radio buttons above the camera list to switch the display mode.

In the “all cameras” display mode, the currently connected recorders and all the registered cameras of the currently connected recorders will be displayed using the tree structure. If a camera name is displayed in gray, the camera is not currently displayed on the screen.

In the “grouping” display mode, the currently displayed cameras only will be displayed.

Drag a camera name from the camera list, and then drop it in the Camera window to display the camera in the Camera window.

“All cameras” display



“Grouping” display mode

Group name:

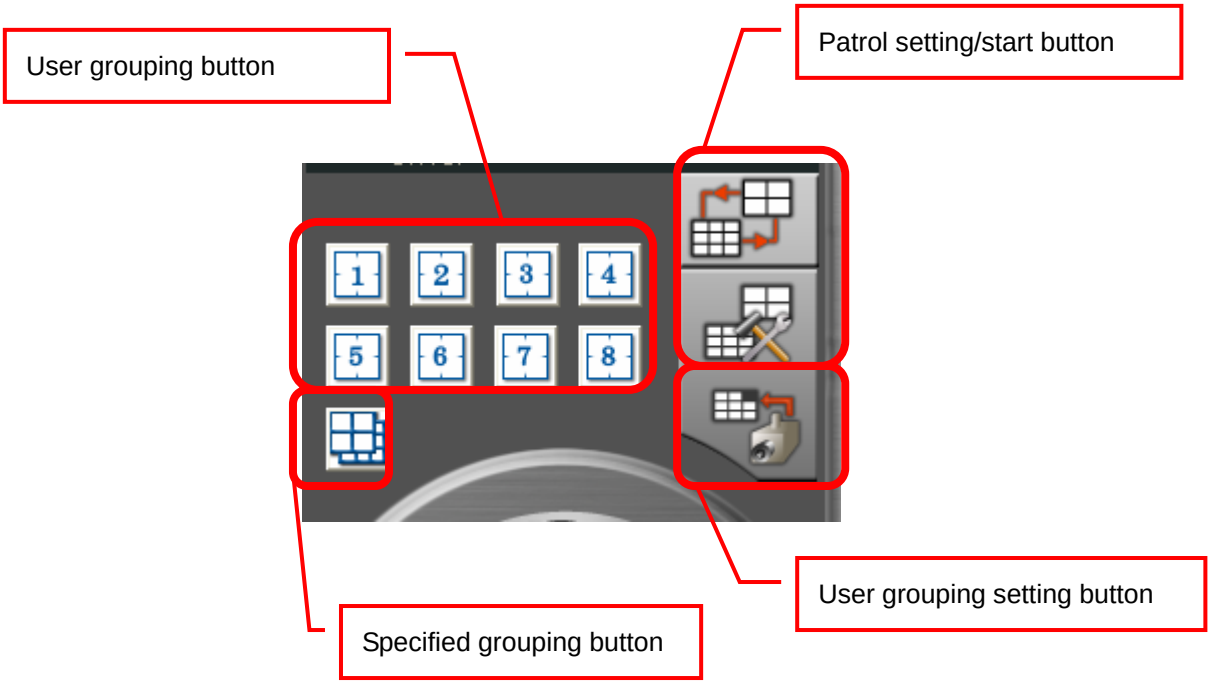
Use the dropdown menu to switch the group name.

3.3.4 Screen layout buttons

Use the grouping function to store all the screen layout data, such as the displayed camera position data and the camera size data, at a time.

Display the desired camera layout, and then use the grouping button to store the layout data as a group. For grouping, you can use user grouping buttons 1 through 8, or the dropdown menu above the Camera list (Sec. 3.3.3).

To display camera images while switching the layout group, set the patrol function, and then click the patrol start button.

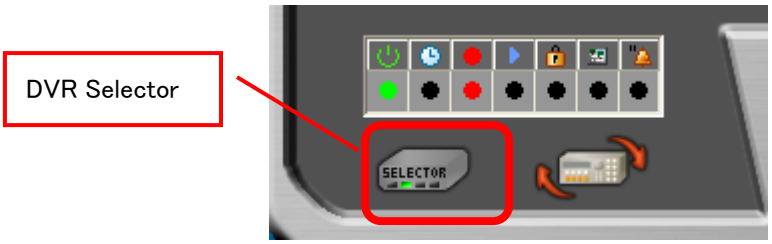


3.3.5 Obtained data control area

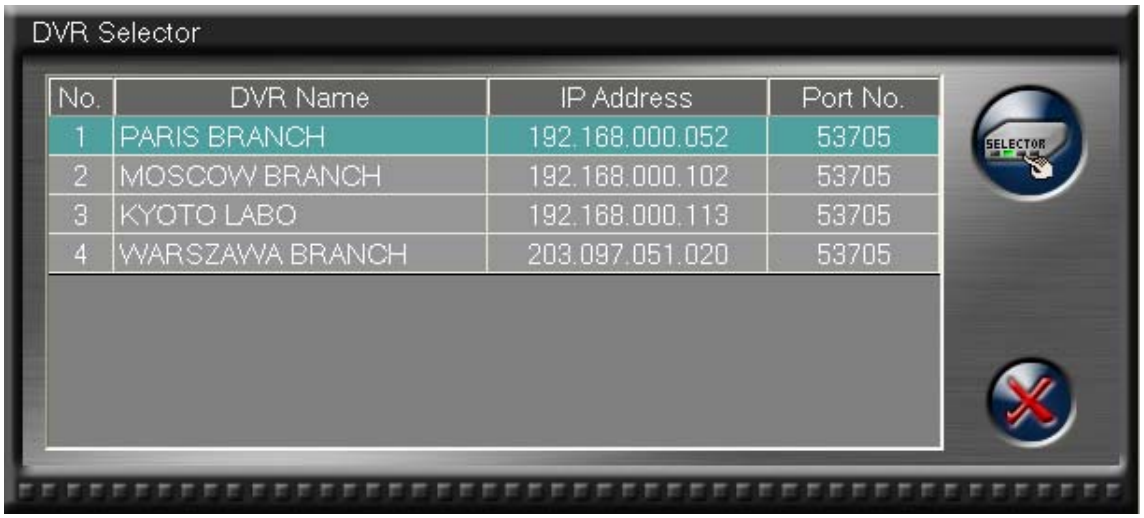
In this area, there are buttons that can control the images and sounds sent from the recorders. On the left side, there are slide bars and the list box that can display the dropdown menu. Use one of the slide bars to determine the image updating speed, and use the other slide bar to adjust the live sound (to turn on/off the live sound and to determine the sound delay value). On the right side, there are various control buttons that can control the regenerated/live images. Different from the control buttons on the Camera Window panel (refer to Sec. 3.3.2), these control buttons enable batch control of all the cameras displayed on the screen. The Speed/Quality control buttons at the upper section can adjust the image quality and the speed in 3 stages. Note that increase in the image quality will reduce the speed, and increase in the speed will reduce the image quality.

3.3.6 DVR selector button

The icon below the status lamp is the recorder SELECTOR button. On the SingleView screen, switching the recorder is required. However, as only the disconnected recorder is displayed with the connecting button, switchover can not take place unless you go back to the MainView screen. In this case, switch the recorder with the recorder SELECTOR.



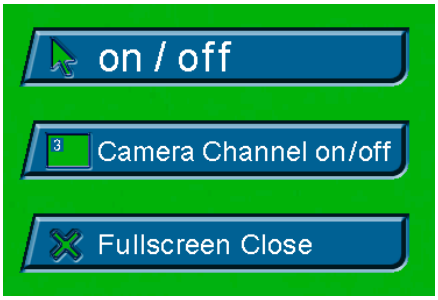
With a click on the icon, the panel below is displayed. In this panel, the list of all registered recorders excluding the recorder which is displayed on the SingleView screen is displayed regardless of the connected/disconnected status. Selecting the desired recorder, click on the execute button on the right.



3.3.7 Full-screen button

Use this button to enlarge the currently displayed camera image to the full size (same size as the screen). In the full-screen mode, nothing is displayed excepting the image. To perform operation, therefore, leave the full-screen mode.

To leave the full-screen mode, click the right button of the mouse on the screen. Several buttons will appear at the center of the screen. Click the "✕ Fullscreen Close" button to leave the full-screen mode. Use the other buttons to delete or display the mouse pointer or to delete or display the camera numbers.



Notice

It may take some time to enter or leave the full-screen mode. Please wait until the mode is switched.

3.4. Multi View screen

On the Main View or Single View screen, click the Multi View screen selector button to go to the Multi View screen. The Multi View screen enables seamless processing of image data sent from multiple recorders.

On the Multi View screen, you can change the image data display method and can control the PTZ camera, etc. If you use the Camera Window panel, you can search the specified camera channel for the specified time.

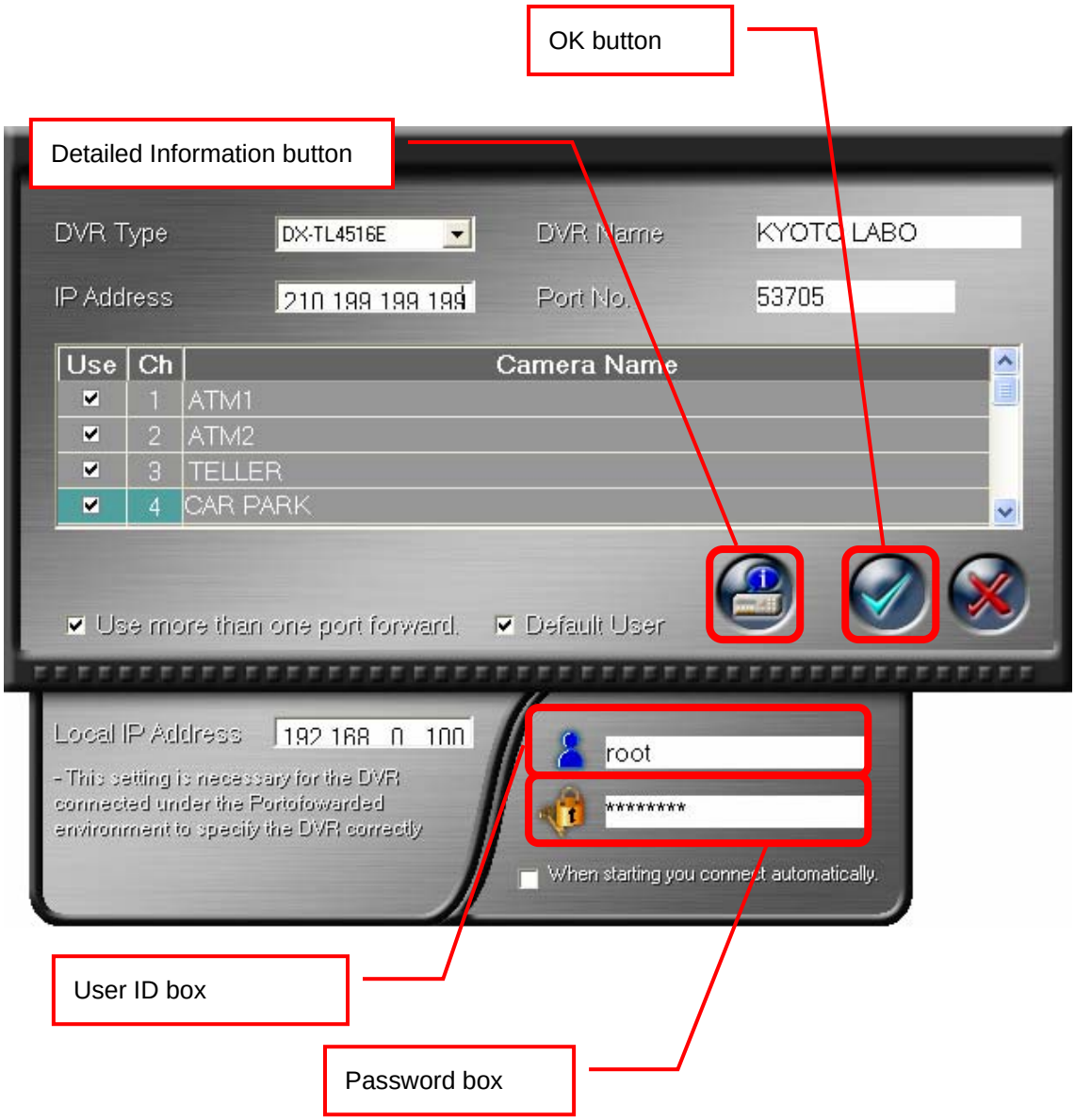
The live sound controller and the image updating speed controller are added to the Camera Window panel of the Multi View screen.

4. Various function screens

4.1. Register/Edit Recorder panel

Use this panel to register recorders in the DX-PC200 or to edit the recorder data.

At the lower left section of the Main View screen, click the Edit Recorder List button (refer to Sec. 3.2.2). A menu will appear. Select “Register recorder” from the displayed menu. To edit data on an already registered recorder, the same type of panel will appear. Select a recorder from the list of registered recorders, and then click the Edit Recorder List button (refer to Sec. 3.2.2). A menu will appear. Select “Edit Recorder” from the displayed menu. The Edit Recorder panel will appear.



“DVR Type”:

From the dropdown menu, select the model number of the recorder to be connected. If the model number of the recorder is not listed in the menu, the DX-PC200 cannot connect to the recorder.

“DVR Name”:

Enter the name of the registered recorder in this box. The name you entered in this box will be displayed on the camera list. For example, enter the name of the camera-installed place in this box. Freely use this box.

“IP Address”:

Set the IP address of the recorder to be connected.

“Port No.”:

Set the port number of the recorder to be connected. If the default port number is not changed on the recorder side, use the default port number “53705”.

“Use”:

Enter a check in the check box if you want to use the camera. Erase the check mark from the check box if you do not use the camera. If the check mark is erased from the check boxes of all the unnecessary cameras, the camera list will be simplified, and the layout switching operation will be smoothly performed.

“Ch”:

Indicates the camera number (channel number) of the recorder.

“Camera Name”:

Enter the camera name. The camera name you entered will be displayed at the upper left section of the camera list and the Camera window. The name of the camera-installed place can be entered as the camera name. Freely use this box.

“Use more than one port forward”:

If the IP masquerade is used for registration, the IP addresses will be different from those of the recorder main bodies. In this case, even if the IP address of an event is received, it is difficult to identify the recorder that issued the event. To easily identify the recorder, enter a check in this check box. The extension tab will be displayed. Enter the IP addresses of the

recorder main bodies for the IP masquerade.

“Default User”:

Enter a check in this box. The extension tab will be displayed. Enter the login user ID number and the password of the recorder. After that, automatic connection or manual connection can be carried out without entering the login user ID number and the password of the recorder. If the check is erased and the extension tab is erased, this function will be disabled. In this case, each time you connect to the recorder, you should enter the login user ID number and the password of the recorder.

“Detailed Information button:

To store the detailed information on the recorder, click this button. The Properties panel will appear. Enter the zip code, address, etc. as the detailed information. Freely use this function.

“When starting you connect auto...”:

Enter a check in this box. The recorder will be automatically connected when the DX-PC200 is started.

4.2. Recorder Image Search panel

Click the Search button at the lower section of the Main View or Single View screen. The Search panel will be opened. The Search panel has several tabs. Use these tabs to change the search method.

At the upper right section of each tab, there is a dropdown menu box. This box enables specification of the recorder search device. Use the dropdown menu of this box to select the recorder for partition.

At the right end of the upper bar, there are two buttons: the “✕” button for closing the panel and the“▲”button for contracting the panel. After contracting the panel using the “△” button, use the “▼” button to enlarge the panel to the original size.

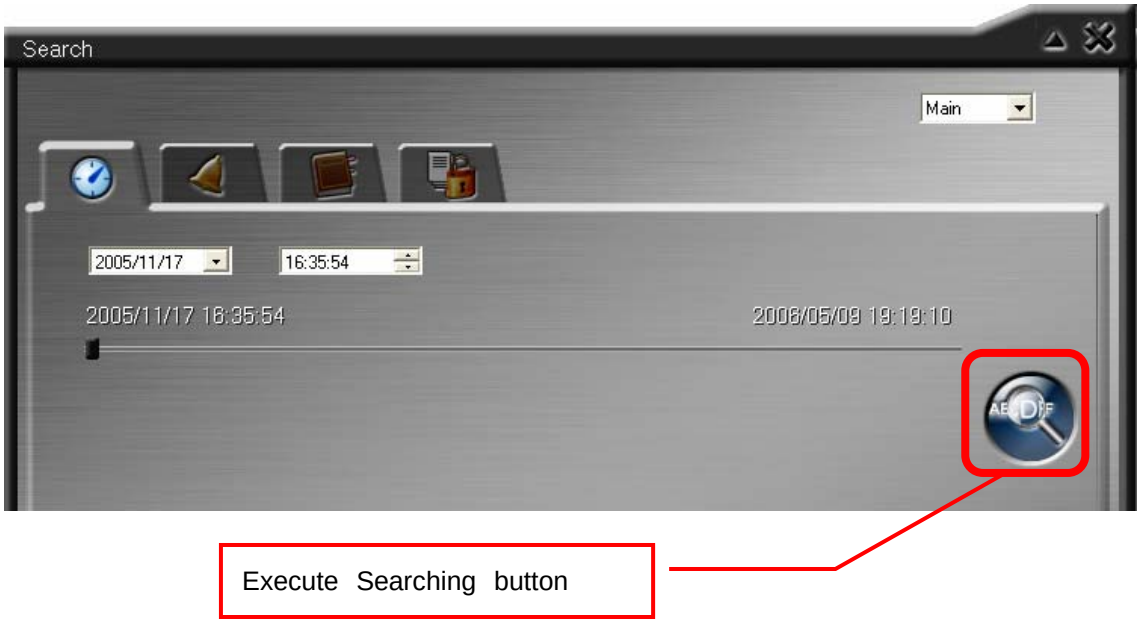
Panel contraction

4.2.1 Time Search tab

Use this tab to search the recorder images for the specified date and time.

Using the slide bar displayed at the lower section, roughly specify the date and time. After that, using the dropdown menu and the spin control function, specify the detailed date and time.

After setting the desired date and time, click the Search button at the lower right section.



Execute Searching button

4.2.2 Alarm List Search tab

Use this tab to search the alarm list for the desired alarm image of the recorder.

Click the Update button to obtain the latest alarm list from the recorder. Some recorders enable specification of the list obtainment range, camera channel, total number of alarms to be obtained, etc.

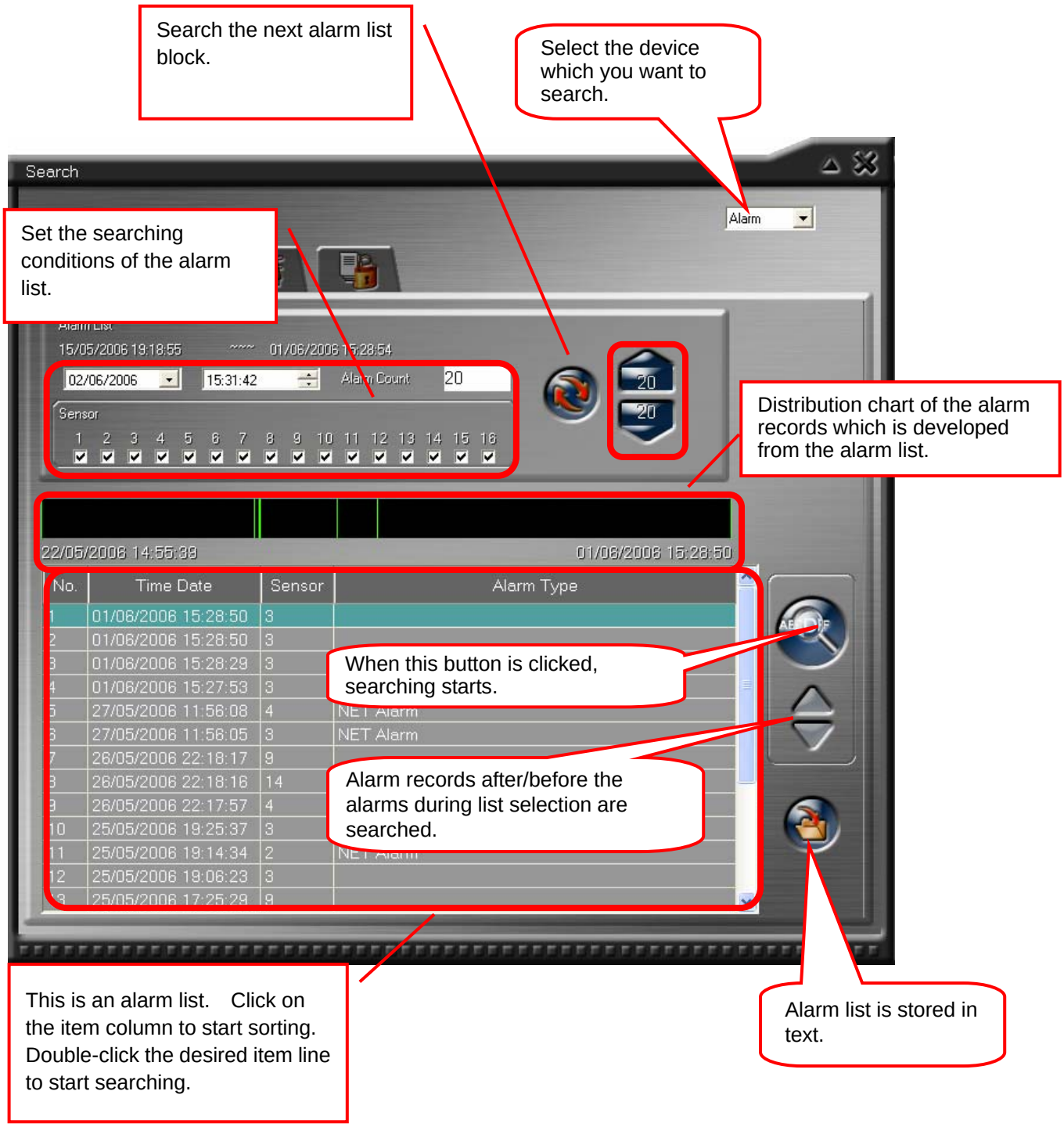
The obtained alarm list will be displayed using the alarm distribution bar and the list display area at the lower section of the panel.

The alarm distribution bar uses thin lines to indicate the alarm record existing date and time. Move the mouse pointer to one of these thin lines. The alarm information, such as the alarm number, on the thin line will appear. Click the fine line to carry out search.

On the alarm distribution bar, if you click the right button of the mouse, a control will appear. Using the control, you can enlarge or contract the alarm distribution bar. Use this function if a lot of thin lines are put together at one point and it is difficult to identify each line.

Select an alarm and then click the Search button on the right side to search the alarm list for the specified alarm image. Or double click an alarm to search the alarm list for the specified alarm image.

Use the Store List button (the button at the lowermost position on the right side) to store the alarm list in the format of a text file.

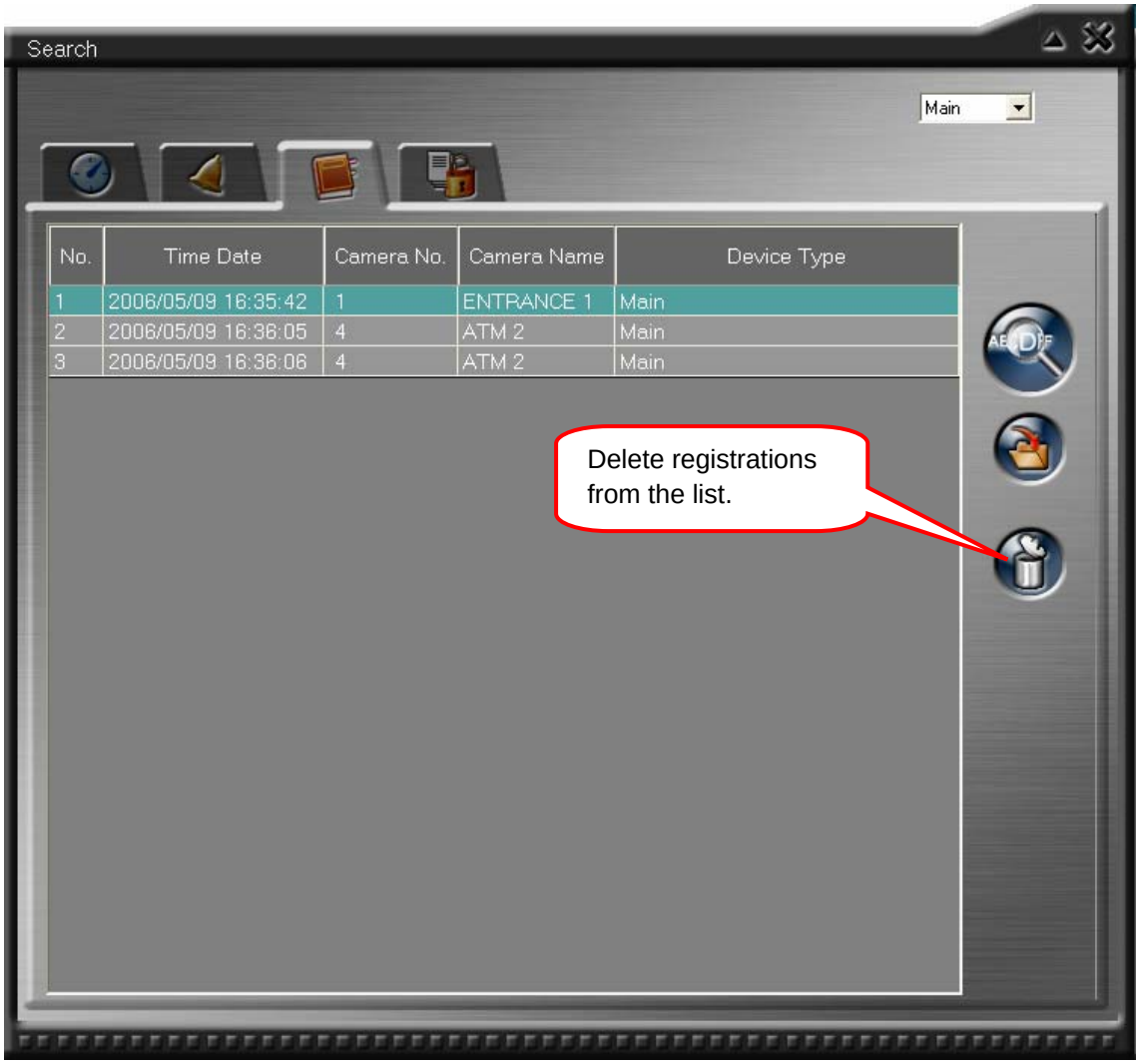

Search the next alarm list block.
Select the device which you want to search.
Search
Alarm
Set the searching conditions of the alarm list.
15/05/2006 19:18:55
01/06/2006 15:28:54
02/06/2006
15:31:42
Alarm Count
20
Sensor
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Distribution chart of the alarm records which is developed from the alarm list.
22/05/2006 14:55:39
01/06/2006 15:28:50
No.
Time Date
Sensor
Alarm Type
1 01/06/2006 15:28:50 3
2 01/06/2006 15:28:50 3
3 01/06/2006 15:28:29 3
4 01/06/2006 15:27:53 3
5 27/05/2006 11:56:08 4 NET Alarm
6 27/05/2006 11:56:05 3 NET Alarm
7 26/05/2006 22:18:17 9
8 26/05/2006 22:18:16 14
9 26/05/2006 22:17:57 4
10 25/05/2006 19:25:37 3
11 25/05/2006 19:14:34 2
12 25/05/2006 19:06:23 3
When this button is clicked, searching starts.
Alarm records after/before the alarms during list selection are searched.
This is an alarm list. Click on the item column to start sorting. Double-click the desired item line to start searching.
Alarm list is stored in text.

4.2.3 Bookmark Search tab

When a regenerated recorder image is being displayed, a bookmark can be attached to the image (refer to Sec. 5.6.1). If a bookmark is attached, the image can be easily searched out from the list using the bookmark.

Select a bookmark from the list, and then click the Search button to carry out search.

Use the Recycle Bin button (the button at the lowermost position on the right side) to erase each bookmark from the list. The bookmark erased, however, may be retained even after the next activation of the DX-PC200 if the user does not carry out explicit erasion. However, even if the bookmark is retained, the actual image may be erased from the recorder due to image overwriting operation, etc. carried out by the user.



4.2.4 Protected Data Search tab

Use this tab to obtain data from the recorder equipped with the data protective function.

Click the Update button to obtain the protected data list from the recorder, and then specify the desired record area. After that, click the Search button to carry out search.

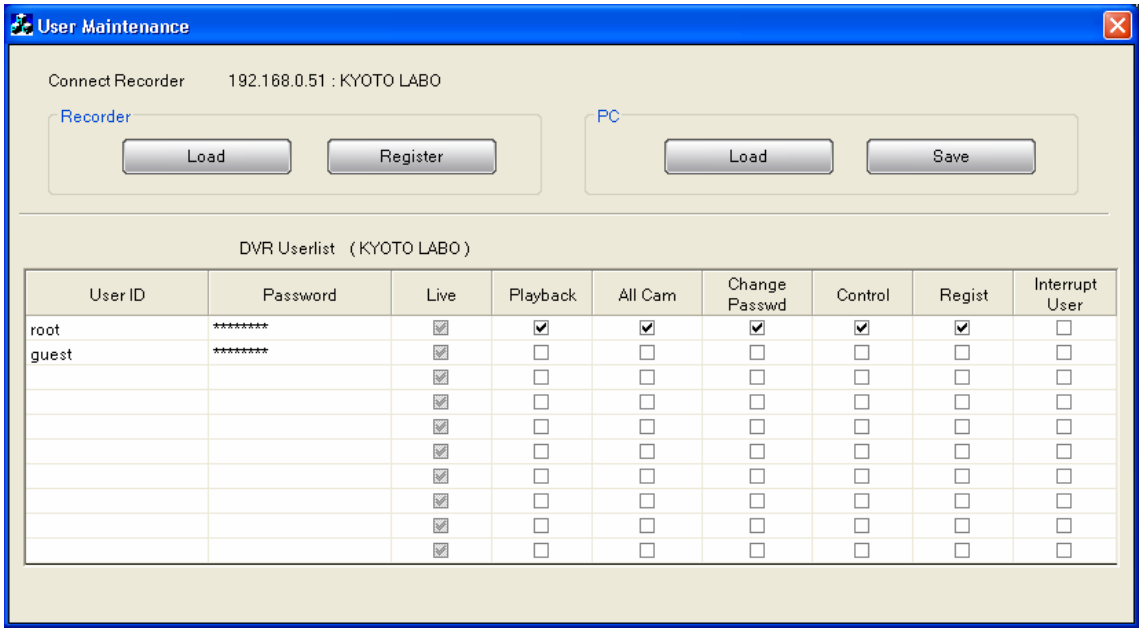
4.3. Recorder User Settings panel

The communication function users can be registered in the recorders. For each user, various rights can be assigned. So each user can use the recorder depending on the own duties. As the default, “root/admin000” (user name and password of the master user) is registered. In addition, “guest/guest” is registered so that any user can obtain the live images only.

Use the User Settings panel to set/edit the recorder user data.

Click the Recorder Settings button at the lower section of the Main View or Single View screen, and then select “User Settings”. The User Settings panel will appear.

During user data setting operation, the live/recorder image displaying operation of the corresponding recorder will be automatically stopped.



There are 6 rights in total.

- Live image obtainment right:

  The right to obtain live images. This right is assigned to all the users.

- Regenerated image obtainment right:

  The right to obtain regenerated images of recorders (Searching and specified section downloading are also possible.)

- All camera images displaying right:

  The right to display images of all the cameras (without being restricted the use of cameras)

- Password change right:

  The right to change the password using the Web screen
- Control right:

  The right to freely operate the recorders (Example: Turning on/off the power, starting/stopping the image recording operation, controlling the PTZ camera)
- Data setting right:

  The right to change the menu data of recorders
- Interrupt user right:

  Authority to use the network resource exclusively, eliminating other network users. InterruptUser is a special authority for emergency use. Do not use this authority for normal communications as well as communications via Web.

Logging in as interrupt user (available only for applied models such as DX-TL5000 series)

When you enable interrupt user and log in the recorder as the interrupt user, all the ongoing communications by the other users (including Web users) are interrupted forcedly. In addition, while the interrupt user is accessing the recorder, other network users cannot access the recorder.

In addition, note that connection to a communication port and the total number of ports are restricted depending on the rights assigned to the user. This means that even if a user has a right, the user cannot always use the right after login. The usable rights for each port are shown below (note that some ports are not adopted for some recorder types):

- Super User port:

  The user can use all the rights.
- Play User port:

  The user can obtain both the recorder images and the live images.
- Live User port:

  The user can obtain the live images only.

Some recorders may be equipped with the User Access port. Users, however, cannot use any rights for this port because this port is adopted for setup of connection.

If a user having the data setting right or the control right connects to the Super User port first, the master user having all the rights cannot connect to the Super User port. In this case, the

master user should connect to the Play User port or the Live User port, and use of the rights will be restricted for the master user depending on the type of the connected port. In other words, if the master user connects to the Play User port or the Live User port, the master user cannot use all the rights even if all the rights are assigned to the master user.

Notice

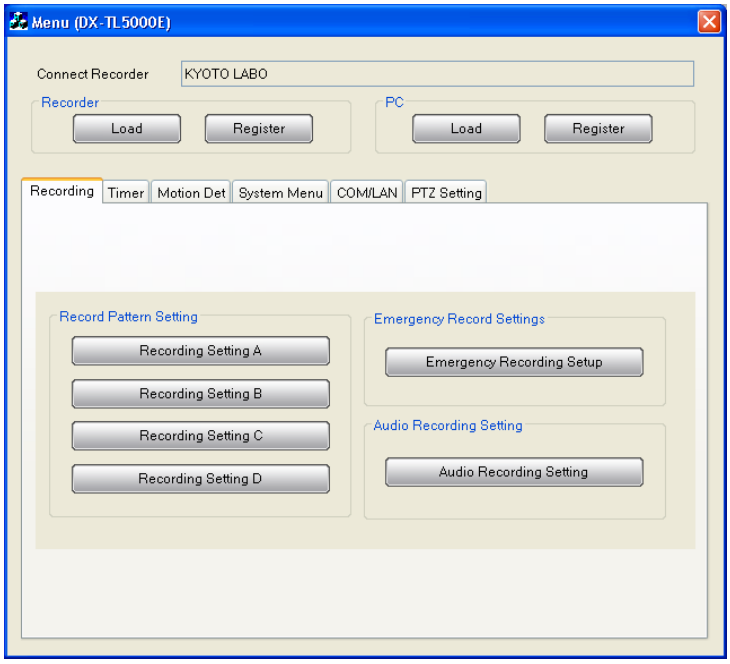
- The same user name cannot be used for two or more users.
- If no users have the data setting right, data cannot be registered or stored.
- To delete a user, just erase the user name, and then carry out registration (or storage).
- In default, the exclusion right does not exist.
- Exclusion right exists for only the applicable model.

4.4. Recorder Menu Settings panel

Use the Recorder Manu Settings panel to set/edit the recorder menu data.

Click the Recorder Settings button at the lower section of the Main View or Single View screen, and then select “Menu Settings”. The Recorder Menu Settings panel will appear.

During recorder menu data setting operation, the live/recorder image displaying operation of the corresponding recorder will be automatically



4.4.1. Obtainment of specified file and registration of set data

Click the Read button in the Recorder area to obtain the previously set menu data from the connected recorder. After editing the obtained data, click the Register button in the Recorder area to register the set menu data in the recorder again. To ensure safe and certain registration of the set menu data, the DX-PC200 will turn off the power at the completion of registration. The recorder, therefore, may be stopped at the power-off status after writing the set menu data. Check the recorder status lamp, and if necessary, turn on the power again or start recording operation again.

In addition, the Register Now button appears at some points of each data setting screen. Use this button to immediately send the entire screen data or the corresponding item data only to the recorder. The merit of this button is that the set data can be sent to the recorder without turning off the power. This button, however, has a demerit. Use of this button can send the set data to the recorder even if the data is unacceptable for the recorder. For this reason, even if the set data is sent to the recorder, the data may not be accepted by the recorder in some cases. After sending the set data, therefore, be sure to read out the set data from the recorder, and check that the recorder data is changed to the set data.

Notice

The Register Now button may not be valid depending on the recorder operation status.

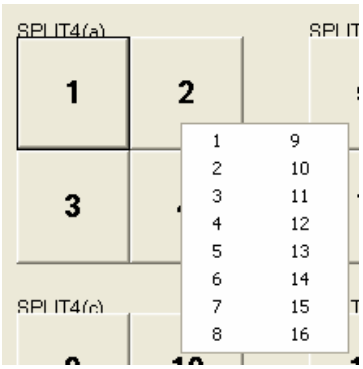
4.4.2 Editing the menu setting file

You can edit the menu settings of the recorder using the menu setting panel. Displayed setting items depend on the type of recorder. For setting items, refer to the operation manual of each recorder.

Following items are set in a unique way to DX-PC200.

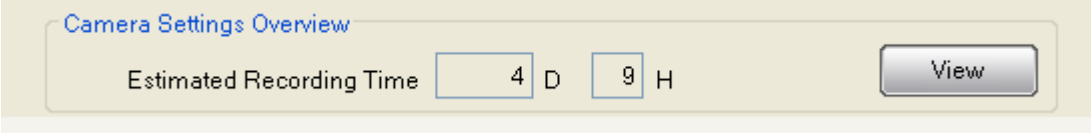
【Multiplexer】

In the multiplexer setting of DX-TL2500 series, left-click the mouse, and the camera channel number will increase by one. Right-click the mouse, and the channel number options will be displayed as shown below.

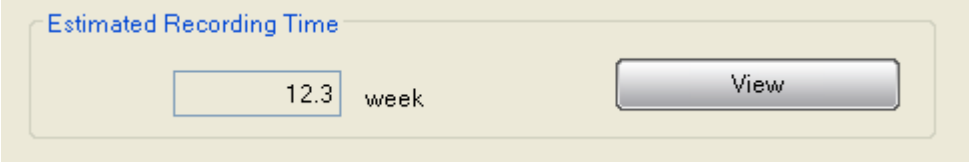


【Estimated recording time】

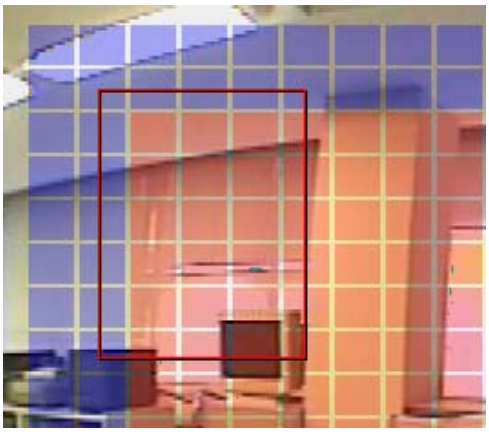
In DX-TL5000 series recorders, you can check the estimated recording time on the recording setting screen. Enter your desired recording settings and click the [View] button. The recording settings you entered are sent to the recorder and the result of calculation of estimated recording time is displayed. Note that the recording settings you entered are only sent to the recorder, not reflected in the recorder. This function is unavailable when the recorder isn't connected.



You can inquire of the recorder the estimated recording time (week) using the timer setting screen. Recorders not supporting this function may answer incorrectly. This function is available only while this software is accessing the recorder.



【Motion detection】



Use the following methods to enable or disable the motion detection dots.

DX-TL5000 series:

- Right-click to disable.
- Left-click to enable.
- Select a rectangular area by dragging the mouse holding down the right button to disable the dots within the area.
- Select a rectangular area by dragging the mouse holding down the left button to enable the dots within the area.

DX-TL2500 series:

- Left-click on each dot to enable or disable it.
- Select a rectangular area by dragging the mouse holding down the right button to enable the dots within the area.
- Select a rectangular area by dragging holding down the Shift key and the right button of the mouse to disable the dots within the area.

Notice

If the registration operation is performed with full-size characters for the item (POP server, SMTP server, etc.) where the use of 2 byte code characters is prohibited on the recorder side, abnormality may occur in the subsequent related operation. If such an abnormality takes place, you can rectify the recorder conditions by registering half-size characters corresponding to the maximum number of characters.

4.5. Recorder Control panel

Use the Recorder Control panel to operate the recorders via the network.

Click the Recorder Control button at the lower section of the Main View or Single View screen. The Recorder Control panel will appear.

Most of the operation results will be indicated by the lamps, Not all the functions on this panel work in the same way as those by the buttons of the recorder. Before using the functions on this panel, check their operations with the status indicators on the recorder controlled. In addition, when the recorder status changes independently of this panel, the recorder status indicated by the indicators doesn't match with the actual recorder status unless you update the recorder data manually. To load the latest recorder data manually, click the Refresh button at the lower left of the panel. When the recorder is operated via the network, indications by the indicators of this software, including indication of the display mode such as sequential display, may be inconsistent with the actual indications by those of the recorder. Therefore, check the operation status of the recorder not only by the indicators of this software but by the recorder itself.

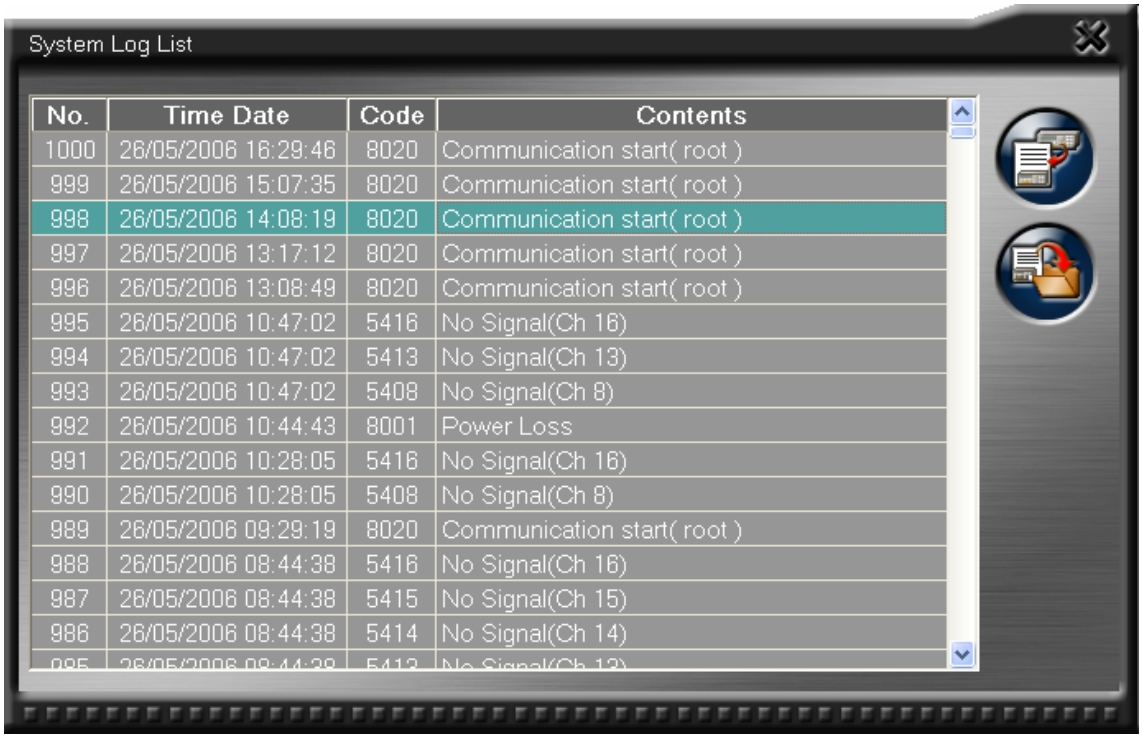
4.6. System Log List panel

Click the System Log List button on the Main View or Single View screen. The System Log List panel will be opened. Click the Read button to obtain the system log list from the recorder.

On the System Log List panel, click an item to start sorting.

Click the Save button to store the logged data in the format of a text file.

During the above operation, the live/recorder image displaying operation of the corresponding recorder will be automatically stopped.



4.7. Options panel

Click the Options button on the Main View screen. The Options panel will be opened. On the Options panel, select an item from the dropdown menu at the top of the screen, and then set or change the operation data on the application software.

4.7.1 General

“Language setting”:

Use this box to change the language. Note that the newly set language will be used after the next activation of the DX-PC200.

“Control description”:

Enter a check in the check box of this area. If a check is entered, moving the mouse pointer to a button will display a description of the button function.

“Renew Info”:

Use this area to set the interval for updating the recorder data (operation status, record area, etc.). If the Super User port of a recorder is connected, the recorder data will be automatically updated at the intervals of 10 seconds, and the interval data set in this box will be ignored.

“Authorize setting”:

Use this box to restrict use of the DX-PC200E functions for each application user. It is possible to add new users and delete users.

“Alarm Notify Master User”:

When the DX-PC200 receives alarm data from a recorder, the master user can register the alarm data in the event list together with the recorder name. Use this box to specify the master user who registers the alarm data.

4.7.2 “Live/Playback”

“Number of steps in search”:

Use the dropdown menu box in this area to change the base number of images for search operation. When you search the regenerated recorder images in the fast-forward or fast-return mode, clicking the Fast Forward or Fast Return button will skip the images by the specified base number of images. Clicking the button again will skip the images by the “base number of images × 2”. Clicking the button once more will skip the images by the “base number of images × 4”. Clicking the button once more will skip the images by the “base number of images × 8”. After that, multiplication of the base number of images will be reset to “× 1”.

The base number of images can be freely set in the range of 1 through 512. However, note that the base number of images may be restricted depending on the recorder type.

“Live Auto Pre-connect”:

Use the dropdown menu box in this area to specify the number of retry times for connecting recorders. If the DX-PC200 is not connected to a recorder for some reasons during obtainment of live images, connection to the recorder will be retried for the number of retry times specified in this box to obtain the live images.

Notice

If a high load is applied to the network, a lot of resources may be needed for communication. In this case, the recorder may stop the communication in order to protect the own functions, such as recording. If this problem occurs frequently in the network, repeated retry of automatic connection may cause abnormal operation of the recorder. For this reason, do not use this function unless absolutely necessary.

4.7.3 Camera Window

"Control setting":

Enter a check in the check box of each button to display the button on the right side of the Camera window. If it is not necessary to display a button, delete the check from the check box. After entering/deleting a check in/from the check box of a button, the button will be displayed/erased after the next activation of the DX-PC200.

"Information setting":

Enter a check in the Image Size and Mode Icon check boxes to display the image size and the operation status on the right side of the Camera window. If it is not necessary to display the image size or the operation status, delete the check from the check box. After entering/deleting a check in/from a check box, the corresponding item will be displayed/erased after the next activation of the DX-PC200.

"Recent Play time":

If you click the Recent Play button, you can display the last scene you have seen just now. Use this dropdown menu box to set the time for displaying the last scene.

4.7.4 Scene Capture

“Folder path”:

Set a folder name in this box. The image data will be stored in the set folder during the scene capture operation.

“File Name”:

Set a file name in these boxes. The image data will be stored in the set files during the scene capture operation.

“File format”:

Set a file format in this box. The image data will be stored in the files using the set file format during the scene capture operation.

Notice

Be careful not to set the same file name for different data because the confirmation message “Do you want to overwrite the data?” will not appear.

4.7.5 DB Maintenance

“Event retention period“

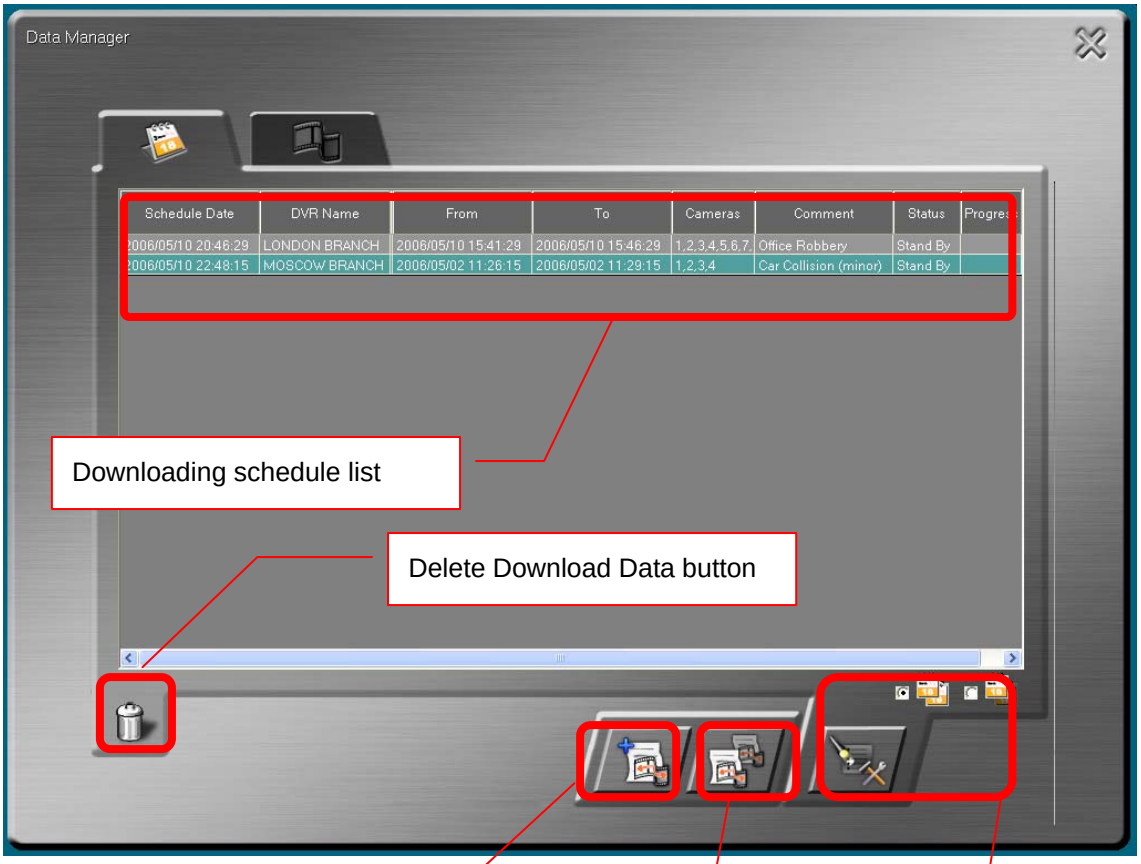
Click the checkbox and then set how many days the data base of the event list is maintained.

4.8. Data Manager panel

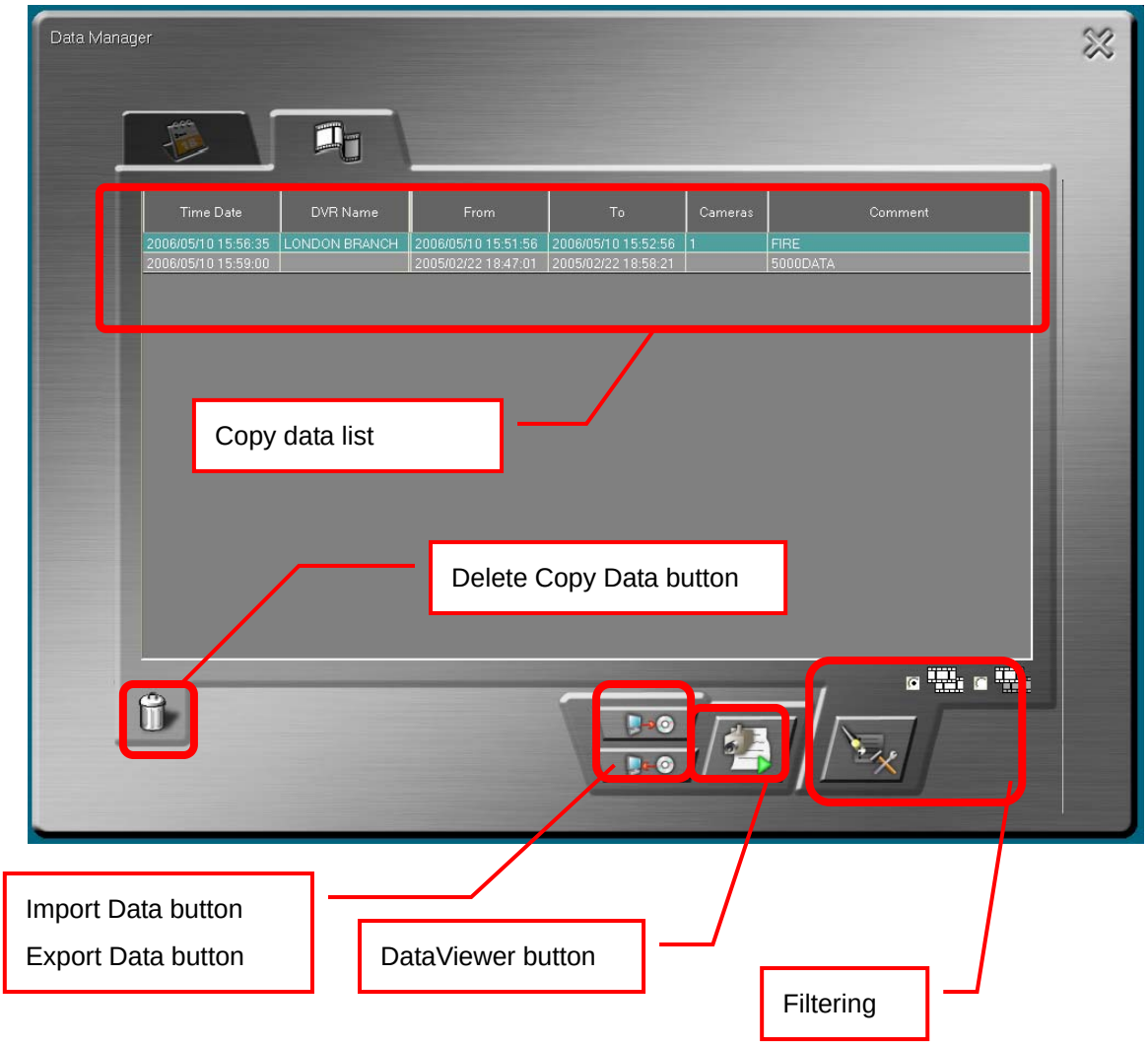
Click the Data Manager button at the lower section of the Main View or Single View screen. The Data Manager panel will appear. Using the Data Manager panel, you can download and store the recorder images, and can export the downloaded images to the outside. In addition, you can schedule the image downloading operation. For example, you can download the images in the middle of the night.

The Data Manager panel has 2 tabs: the Schedule List tab and the Data List tab. Use the Schedule List tab to control the image downloading schedule, and use the Data List tab to control the downloaded data.

4.8.1 Schedule List tab



4.8.2 Data List tab



4.8.3 Section Download panel

Click the Add/Edit Download Data button at the lower section of the Schedule List screen of the data manager (refer to Sec. 4.8.1). The Section Download screen shown below will appear.

Set the following items in areas ① through ⑩:

Area ①: Set the download start time.

Area ②: Set the recorder.

Area ③: Set the recording device.

Area ④: Set the name of the user who will log in the recorder (also set the password).

Area ⑤: Set the download period (download start time and download completion time)

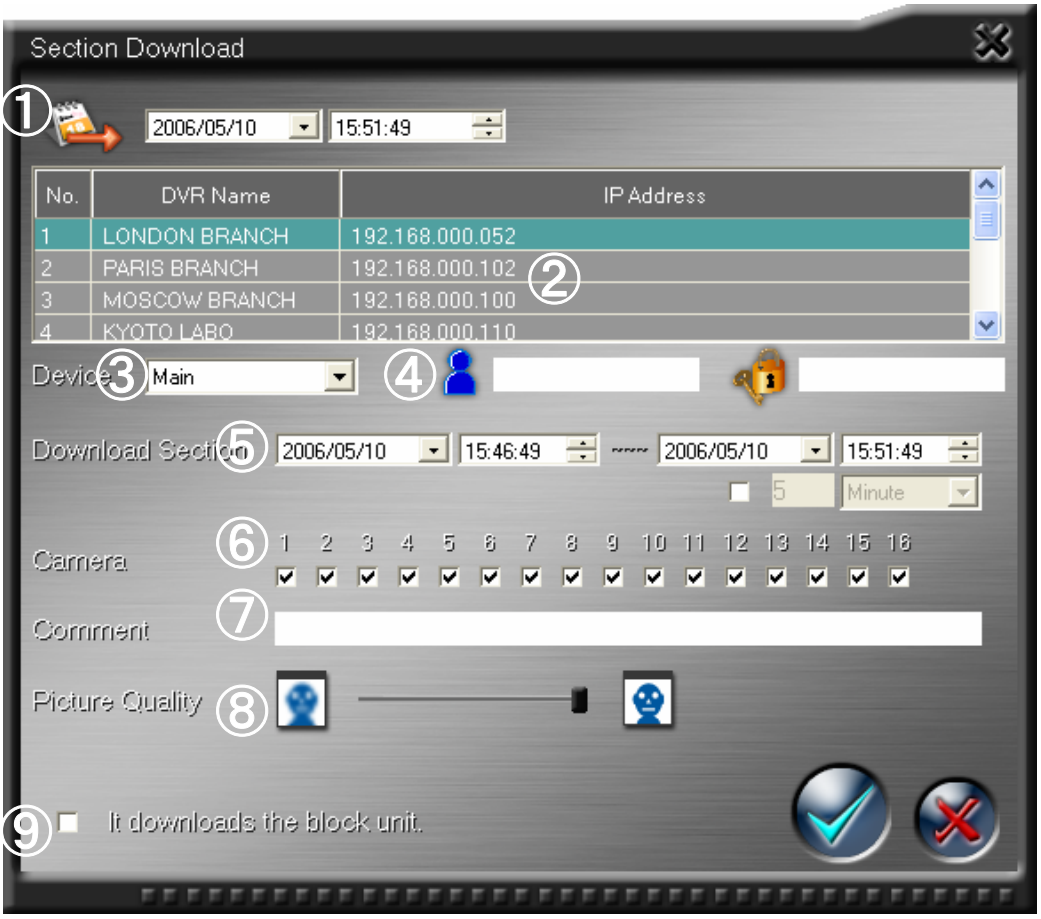
Area ⑥: Set the camera channel.

Area ⑦: Set the comment on the data to be stored.

Area ⑧: Set whether the high-speed download should be carried out for each block.

Area ⑨: Set whether the high-speed download should be carried out for each block.

At the completion of setting, click the button to store the set data in the schedule list.



Notice

In the data downloaded by this function, frame loss may occur depending on the communication condition. Therefore, the section download isn't recommended for backup use. To download a large amount of data from the recorder for a long period, it is recommended to use the copy function of the recorder.

While the section download function in blocks is in use, you can't use the following functions of DX-TL5000 series recorder: copy 1, restore, deleting data from the copy 1 device, saving and loading menus, and picture copy. Contrarily, while any of these functions of DX-TL5000 series recorder is in use, you can't use the section download function in blocks.

4.9. Grouping

After setting each camera image in the desired position, you can register its screen layout as “Grouping”. This Grouping registration can facilitate calling the screen layout and displaying it when the startup operation is carried out next time. The patrol function is also available, in which the screen layouts in Grouping are patrolled automatically (refer to Sec. 4.9.3).

Information stored as “Grouping” includes the camera layout, login user for a corresponding recorder, and its password. Therefore, registration information of this Grouping is stored for each individual user of the DX-PC200. (Even if you use the same PC, you can not use other user’s Grouping with the other DX-PC200 user.)

In addition, the registered Grouping can be allocated to the user Grouping button in the right section on the SingleView/MultiView screens.

4.9.1 Registration to Grouping list

With a click on the Grouping Setting Display button of the SingleView/MultiView screens, “Grouping list” is displayed.

Addition or deletion is carried out with the Addition button or the Deletion button which are located in the right section of this panel.

With a click on the Addition button, display a dialog to enter the Grouping name. Register it using an appropriate name. The current screen layout is added to the Grouping list.

<Grouping at startup>

When a check mark is entered into the “Grouping at startup” column of the list, this Grouping is automatically called and displayed at the time of startup.

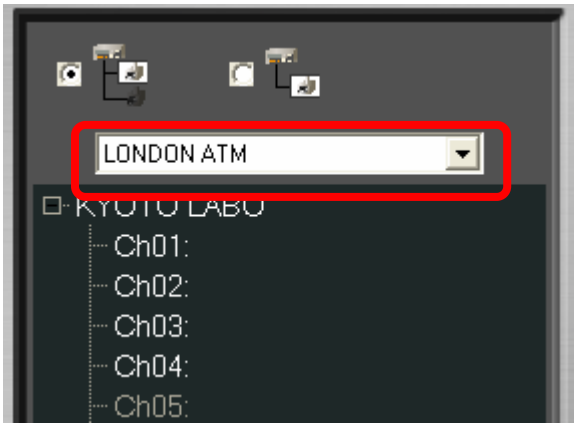
4.9.2 Call of registered Grouping

There are 3 methods to make a call of the Grouping.

When a call of the Grouping is made, the dropdown section of the camera list and the display of the camera list are changed simultaneously.

1. Call from camera list

   Select a desired Grouping in the Dropdown section of the upper part of the camera list (refer to Sec. 3.3.3).

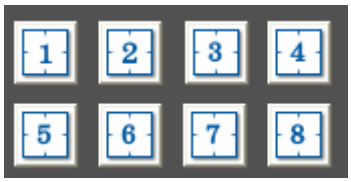


2. Call from F key (Function key)

   The first 12 buttons from the top of a Grouping list are allocated to the F keys on the keyboard. When the F key is pressed together with the Ctrl key, the Grouping is changed. The F keys are allocated in the sequence of registration in the Grouping list.

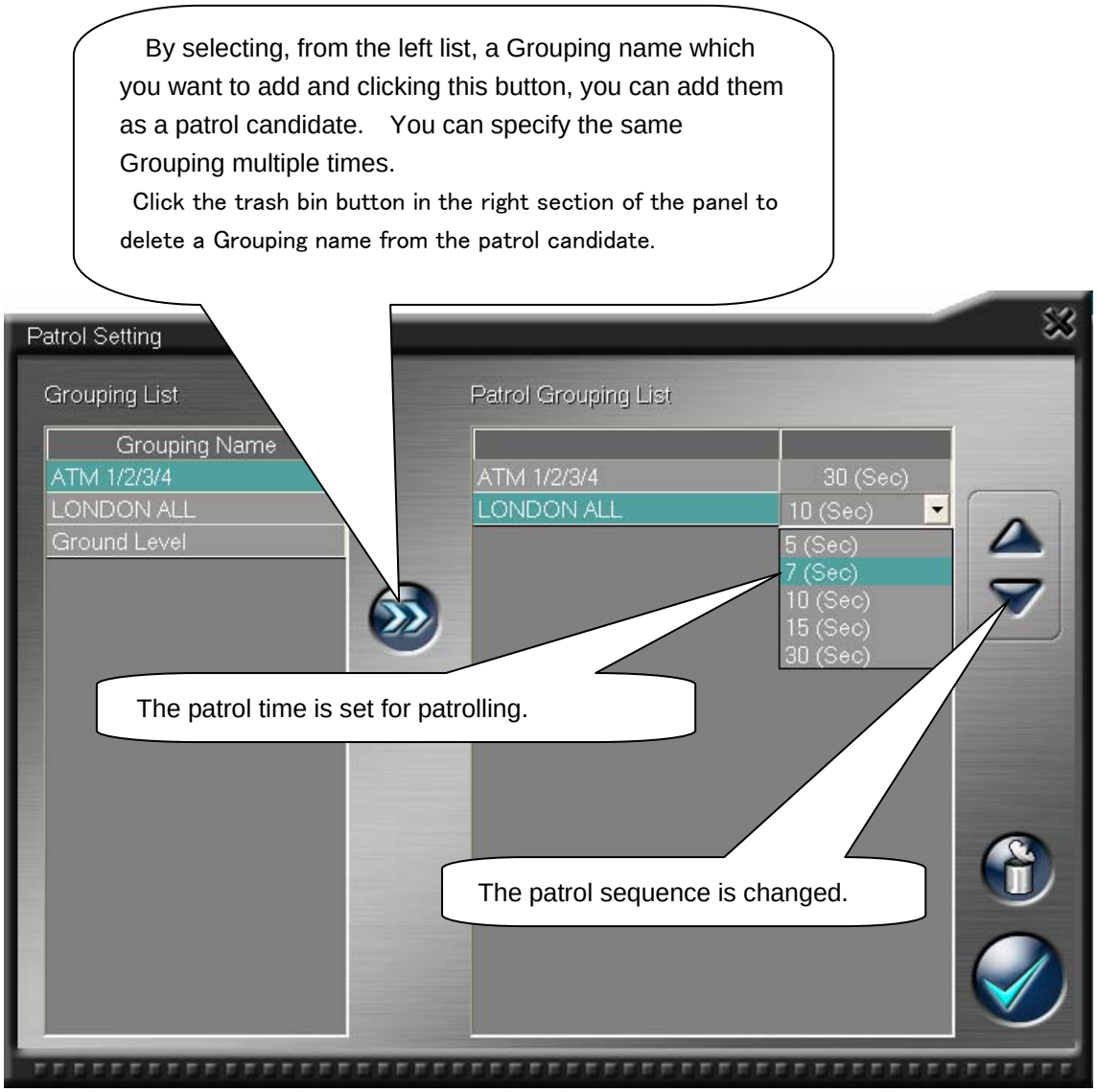
3. Call from Grouping button

   Groupings can be allocated to 8 buttons in the lower section of the camera list (refer to Sec. 3.3.3) by users. Refer to Section 4.9.4 for the detailed allocation procedure.



4.9.3 Sequential display in stored screen layout <Patrol function>

With a click on the patrol/monitor button below the camera list, you can patrol/monitor the registered Groupings at a specific time intervals. During patrolling/monitoring, the button arrows are animated as if they revolve. You can change time interval/order/necessity of patrol with the Patrol Setting button below the patrol/monitor button.


By selecting, from the left list, a Grouping name which you want to add and clicking this button, you can add them as a patrol candidate. You can specify the same Grouping multiple times.
Click the trash bin button in the right section of the panel to delete a Grouping name from the patrol candidate.
Patrol Setting
Grouping List
Grouping Name
ATM 1/2/3/4
LONDON ALL
Ground Level
Patrol Grouping List
ATM 1/2/3/4
30 (Sec)
LONDON ALL
10 (Sec)
5 (Sec)
7 (Sec)
10 (Sec)
15 (Sec)
30 (Sec)
The patrol time is set for patrolling.
The patrol sequence is changed.

Notice

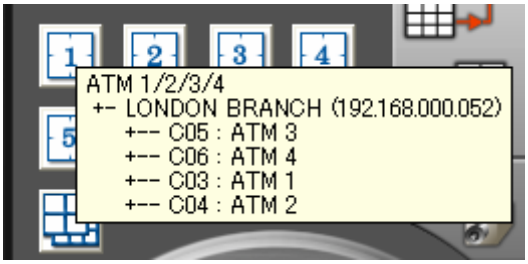
If a short patrol interval is set for a PC with small capacity or in the slow speed networks, the next Grouping screen may appear before the live image is correctly displayed.

4.9.4 Allocating Groupings to Grouping buttons

Groupings can be allocated to the 8 numeric buttons below the camera list by users.

With a click on the user button to which Grouping is not yet allocated, the “Grouping Select” dialog opens. As Groupings which have already been registered are displayed in the dropdown list, select a Grouping which you want to allocate to that button.

When the mouse cursor is located on the button after setting, allocated Grouping is displayed in the tree. When you click in that status, the screen layout changes to that of the corresponding Grouping.



When you want to allocate a new Grouping to the button to which any other Grouping has already been allocated, right-click the button. As the Grouping Select dialog appears, you can select a Grouping.

4.10 Various operations on Camera window

4.10.1. Facilitating visibility of the Camera window <Gaze window function>

When the Camera window is small and is displayed on the edge of the PC screen, you can move it to an easily viewable position.

With a click on the button in the upper section of the Camera window, the Camera window is displayed in the center of the screen and the button color changes to the green . While the Gaze window is displayed, the decode level and the image quality (refer to Sec. 4.11.7) automatically become the highest level. When the button is clicked again, the Gaze window function is released, and the Camera window color and button color return to the original.

Use the Gaze Window button to select between delete and display in the Option Camera window (refer to Sec. 4.7.3). When delete is selected, operation response speed of the whole screen is slightly improved.

4.10.2. Capturing the currently displayed image <Scene capture function>

When an important scene appears on the camera window, you can capture the scene by clicking the button at the right of the window.

The captured image is saved in the [cap_img] folder in the My Document folder by default. You can specify other folder for saving the captured image using the Camera Window tab on the Option window (Sec. 4.7.1). You can select the format to save the file, BMP or JPEG.

You can select to display or hide this button using the Camera Window tab on the Option window (Sec. 4.7.3). When this button is hidden, the response to the screen operation gets slightly faster.

4.10.3. Viewing preceding recorded images <Instant replay function>

By clicking the button at the right of the camera window during live image viewing, you can display the image that was recorded a specified time before. (The preceding image is displayed still.)

To specify the preceding time, use the Camera Window tab on the Option window (refer to Sec. 4.7.3).

You can select to display or hide this button using the Camera Window tab on the Option window (refer to Sec. 4.7.3). When this button is hidden, the response to the screen operation gets slightly faster.

Notice

The instant replay function calls recorded images from the recorder. Therefore, when the recorder has no images that were recorded the specified time before, no images are displayed. When images

have been recorded sparsely in the recorder, this function may call an image that is far from the specified time.

4.10.4. Starting alarm recording manually <NET alarm recording function>

You can start alarm recording by clicking the button if you find an important scene to be alarm-recorded during live image viewing.

In this case, the alarm recording duration set in the recorder is applied.

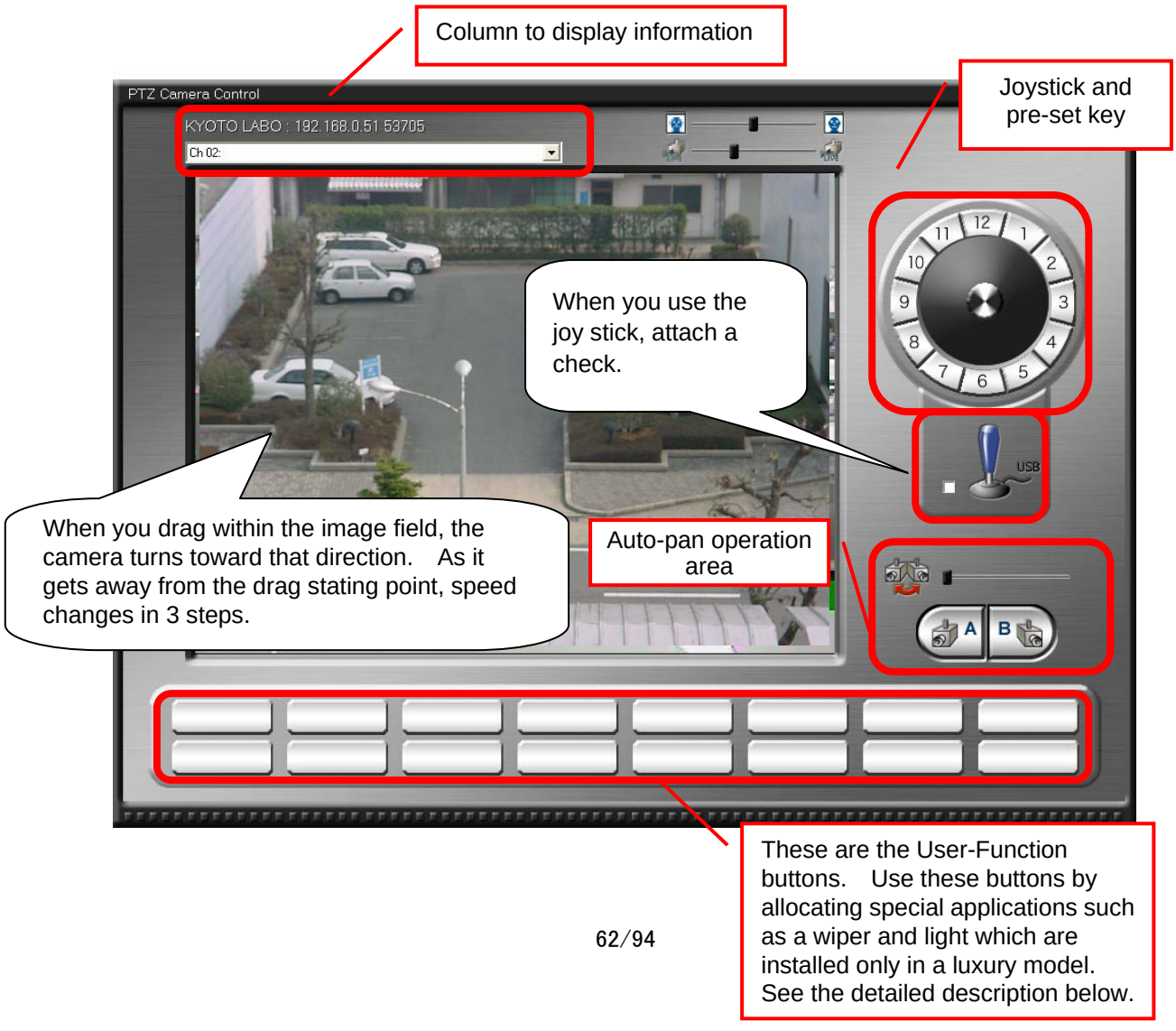
You can select to display or hide this button using the Camera Window tab on the Option window (refer to Sec. 4.7.3). When this button is hidden, the response to the screen operation gets slightly faster.

Notice

This button is effective only to the recorders supporting the NET alarm recording function, such as DX-TL5000 series.

4.10.5. Controlling the PTZ camera <PTZ control function>

With a click on the PTZ control panel button of the Camera Window panel (refer to Sec. 3.6), the PTZ control panel opens. Function of each button is shown in the figure below.


Column to display information
PTZ Camera Control
KYOTO LABO : 192.168.0.51 53705
Ch 02:
Joystick and pre-set key
When you use the joy stick, attach a check.
When you drag within the image field, the camera turns toward that direction. As it gets away from the drag stating point, speed changes in 3 steps.
Auto-pan operation area
A
B
These are the User-Function buttons. Use these buttons by allocating special applications such as a wiper and light which are installed only in a luxury model. See the detailed description below.

<Information display column>

The currently connected recorder name and IP address are displayed in the upper column.

The currently displayed camera channel number and the registered camera name are displayed in the lower column.

By selecting a camera with this dropdown list, you can change a camera in display.

<Joystick>

Perform pan and tilt with left-drag of the mouse.

Turn clockwise and counterclockwise with right-drag for zooming operation.

<Preset key>

With a right-click, perform preset registration of the current camera position.

Make a call of preset with a left-click.

<Auto Pan operation area>

AB points registration and speed adjustment bar of the Auto Pan

Notice

Some camera models do not have these functions.

As USB joystick may not be useable, perform sufficient test in advance.

During this operation, live/recorder image playback with the corresponding recorder are discontinued automatically.

Special functions such as the wiper and light can be allocated to the 12 user function buttons. With a left-click on the unset button, the dialog below opens. With a click on the [OK] button after setting, the button name is displayed on the button. With the next left-click, the button which issues the allocated command is indicated.

Button name : Enter the desired characters on the button.
Keep in mind that the number of characters is limited.

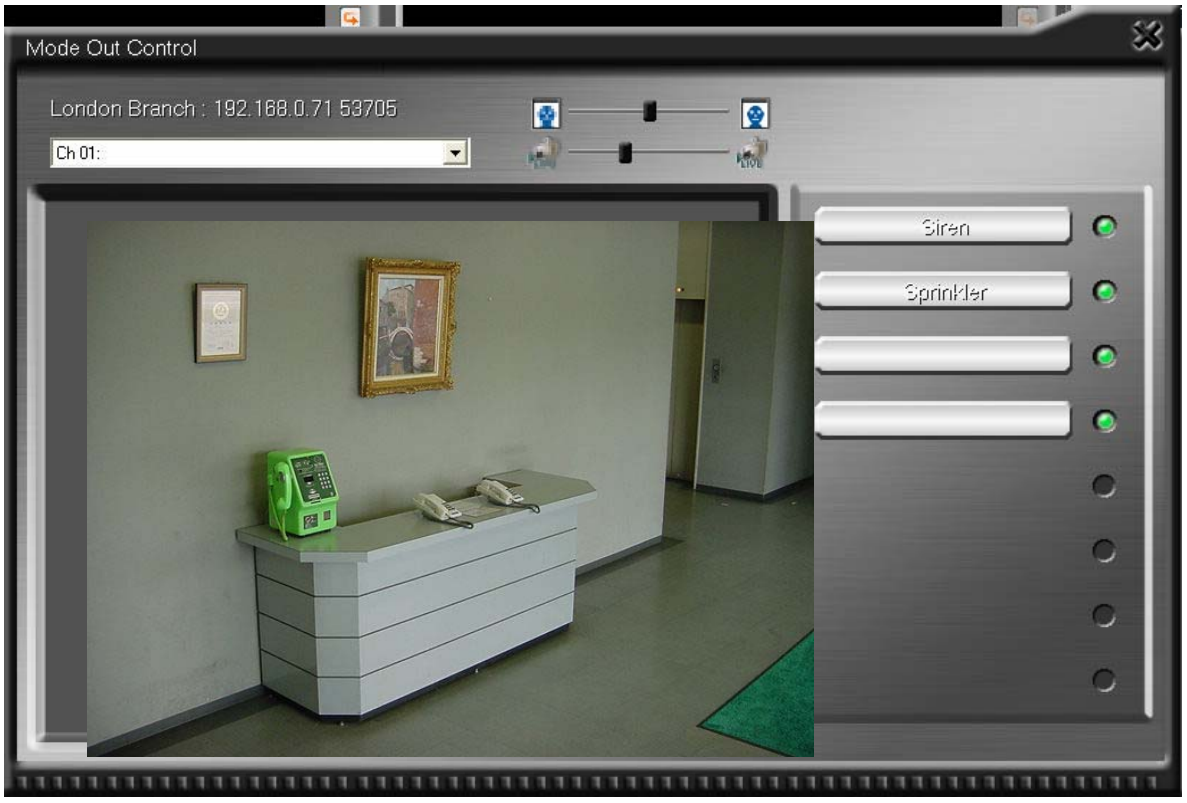
PTZ command : With a click on this button, select a command which you want to issue.

Right-click to change the registered contents of the button which has already been allocated. In the same way, the setting dialog opens.

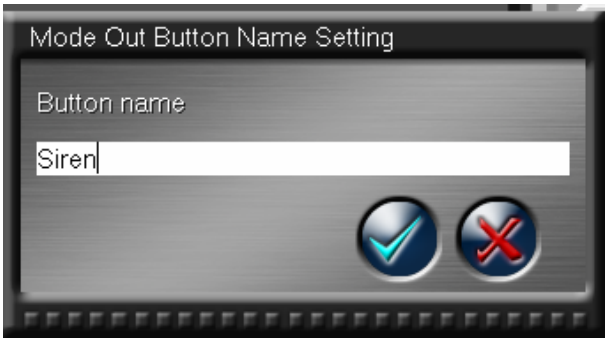
4.10.6 Remote-controlling the externally connected device <MODEOUT control function>

With a click on the MODEOUT control button of the Camera Window panel (refer to Sec. 3.3.2) or the MODEOUT control button of the Camera window, the MODEOUT control panel opens. Operation of each button is shown in the figure below.

When MODEOUT on the recorder side is set to “LAN”, the right button becomes effective. By clicking the button, you can control polarity of the MODEOUT terminal in the back of the recorder. The right lamp is off as default polarity.



When the button is right-clicked, the dialog below is displayed and you can change the name displayed on the button. Keep in mind that the number of characters for a button name is limited.



4.10.7 Printing out with a printer

With a click on the button of the Camera window, the Print window below opens. By pressing the print button at the lower right, you can print using the printer.

- [Preview]・・・・・・Print preview is displayed.
- [Margins]・・・・・・・・・・・Enter margins in millimeters.
- [Memo]・・・・・・・・・・・・Memo is printed under the image.
- [Number of copies]・・・・・・・・・・・Specify the number of copies. This option is unavailable with printer drivers not supporting multiple copy printing.
- [Printer settings]・・・The Windows standard [Printer Setup] dialog box appears. Select a printer, paper type, and orientation.

The name of the recorder and date/time are printed on the image, and memo (if entered) is printed under the image.

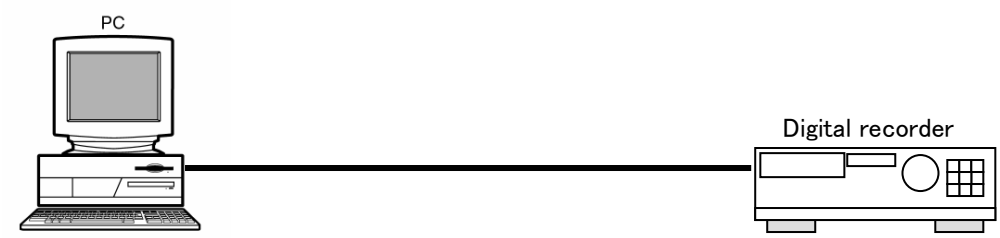
5． Operation via network

In this chapter, the network function of the DX-PC200 is explained from a usage point of view. Even if you are using the DX-PC200 for the first time, you will get to learn the full scope of the network function by reading this chapter from the beginning.

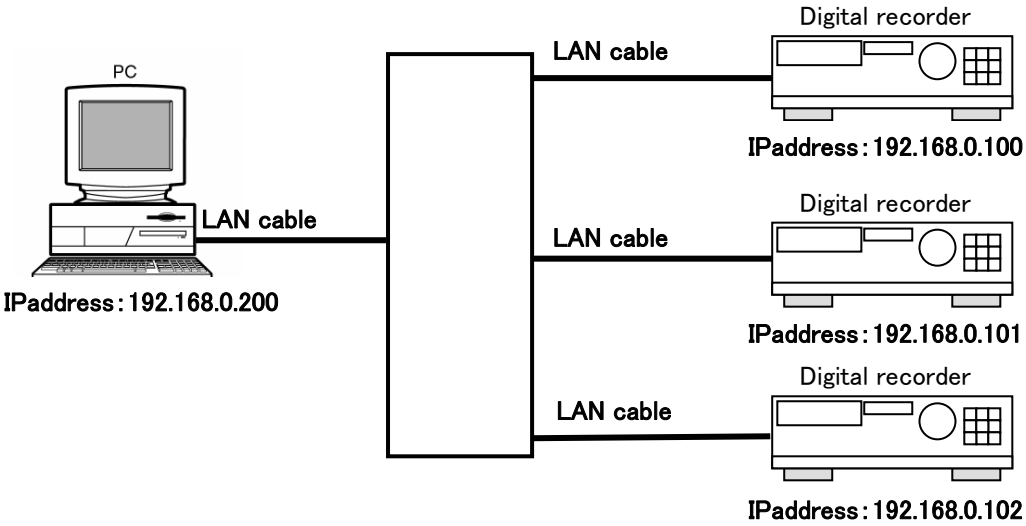
5.1 Connecting hardware

For network operation using this software, prepare a network environment where general TCP/IP communication is possible. The simplest network system consists of a PC having this software and a recorder, both linked by a LAN cross cable. You can connect more than one recorder using a LAN network with a switching hub. Alternatively, you can include more than one recorder by connecting them to a static NAPT configuration using an ADSL router. Following is an example of simple connection.

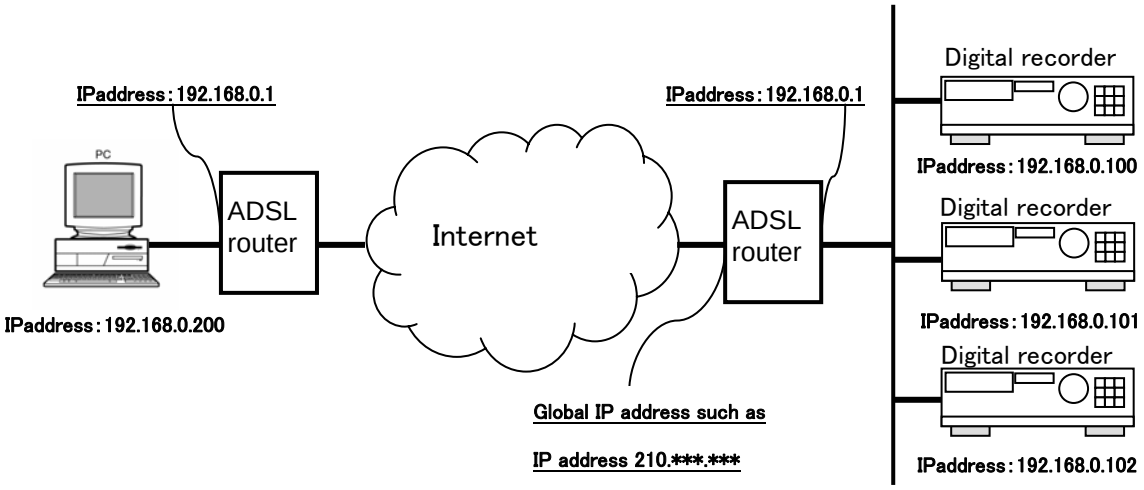
5.1.1. When connecting one PC and one recorder using a cross cable (LAN):



5.1.2. When connecting one PC and more than one recorder using a switching hub (LAN):



5.1.3. When connecting one PC and more than on recorder using an ADSL router (via the Internet):



5.2. Setting for communication between the recorder and PC

Following settings are required for communication between the recorder and PC. This section describes an example of networking using a switching hub as illustrated in 5.1.2.

5.2.1Setting the IP address of the recorder

For communication between the PC and each recorder, their network addresses must be identical. A network address is a component of an IP address, starting from the head of the IP address. A subnet mask determines where the network address ends in the IP address.

IPaddress :192.168.000.100

Subnet mask :255.255.255.000

In this example, the first block containing the numbers “192.168.000” in the IP address is recognized as a network address. The last “100” is a host address, which represents respective terminal in the network. When connecting a PC and more than one recorder in the same network, be careful not to use duplicate host addresses.

DVR-A ;192.168.0.100(Subnet mask 255.255.255.0)

DVR-B :192.168.0.101(Subnet mask255.255.255.0)

DVR-C :192.168.0.102(Subnet mask 255.255.255.0)

For the procedure to set the IP addresses of the recorders, refer to the operation manual of each DVR.

5.2.2. Setting the port number of the recorder

For communication between the recorders and PC, it is required to set a port number. You can find this port number by [USER ACCESS] port in the Network menu of the recorder. The default port number shown by [USER ACCESS] port of the recorder is 53705. You don't need to change this number in normal use. Change this number when it is necessary to set different port numbers in an NAPT configuration using an ADSL router.

5.2.3. Setting the IP address of the PC

The procedure to set the IP address of the PC depends on the type of operation system you use. This section describes the procedure to set the IP address for Windows XP. As described in 4.2.1 above, the network address of the PC should be identical to that of the recorder. Be sure to use the same network address as that of the recorder when setting the IP address of the PC.

5.2.4. Checking communication using a ping command

After setting the IP addresses and port numbers, check whether the communication is carried out successfully using a ping command. Ping command is a command to check whether the terminals can communicate each other over the network. Most Windows operating systems are equipped with this command. In the case of an NAPT configuration using an ADSL router as illustrated in 4.1.3, most ADSL routers don't respond to a ping command sent via the Internet unless those routers have special settings for it.

＜Ping test method＞

Select [Start] > [Accessory] > [Command Prompt]. At the command prompt, enter

>ping 192.168.0.100

(In the actual test, use the IP address of the recorder to be tested and enter a blank at the head of the IP address.) When the communication is carried out properly, the following message is displayed.

```
Pinging 192.168.1.100 with 32 bytes of data:
    Reply from 192.168.0.100: bytes=32 time<10ms TTL=255
    Reply from 192.168.0.100: bytes=32 time<10ms TTL=255
    Reply from 192.168.0.100: bytes=32 time<10ms TTL=255
    Reply from 192.168.0.100: bytes=32 time<10ms TTL=255
```

If the following timeout message is displayed, the recorder and PC are not connected correctly by the LAN cables.
In this case, check the cable connections.

Pinging 192.168.0.100 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

In particular, when the following message is displayed, the network address of the recorder is not identical to that of the PC or the default gateway of the PC has been set incorrectly. Check the settings.

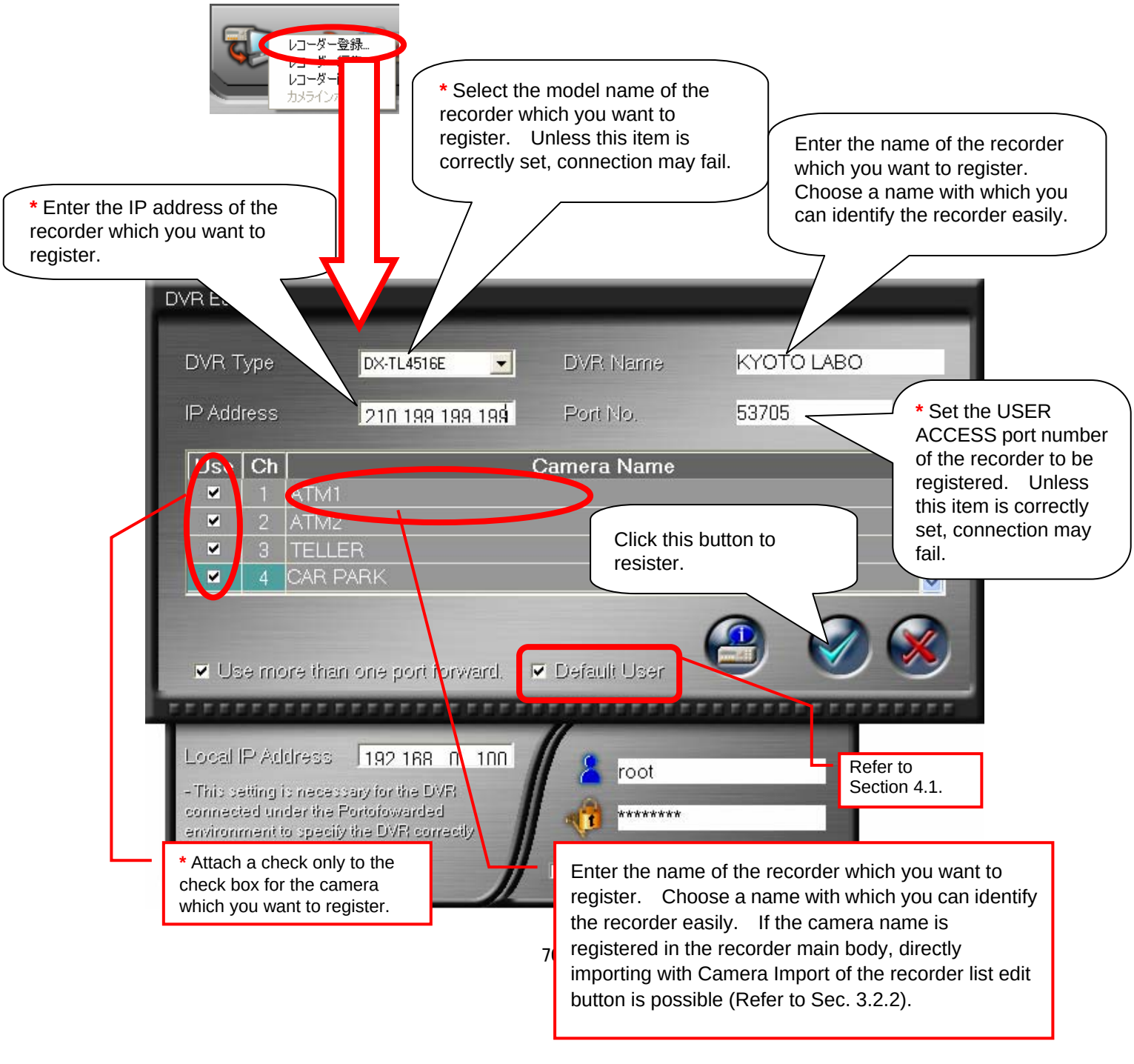
Pinging 192.168.0.100 with 32 bytes of data:
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.
Destination host unreachable.

5.3. Viewing LIVE after registering the recorder

On completion of physical connection and setting of the recorder, PC, and the recorder, register the recorder which you want to connect to the DX-PC200. For the registration, information regarding the IP address of the recorder which you want to connect, the USER ACCESS port number, the model name, etc. are required.

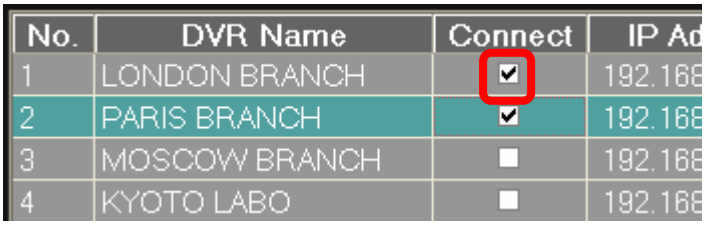
5.3.1. Registering the recorder

With a click on the recorder list edit button of the MainView screen, the following menu is displayed. When "Recorder Registration" is selected and clicked, a dialog below is displayed. Setting the items with a ※ mark are essential. When the registration is completed, the recorder you selected is added to the recorder list of the main window.

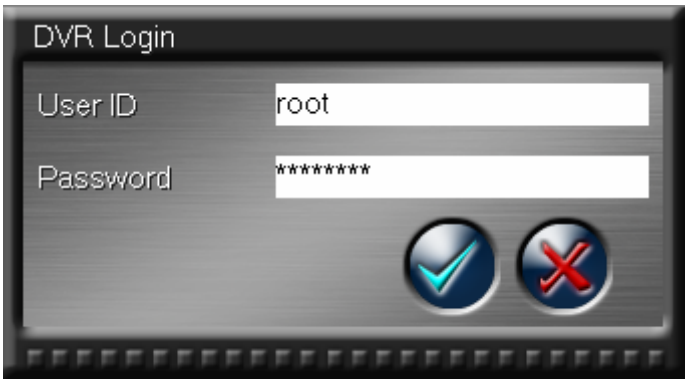

レコーダー登録...
* Select the model name of the recorder which you want to register. Unless this item is correctly set, connection may fail.
Enter the name of the recorder which you want to register. Choose a name with which you can identify the recorder easily.
* Enter the IP address of the recorder which you want to register.
DVR Type
DX-TL4516E
DVR Name
KYOTO LABO
IP Address
210 199 199 199
Port No.
53705
Ch
Camera Name
1 ATM1
2 ATM2
3 TELLER
4 CAR PARK
* Set the USER ACCESS port number of the recorder to be registered. Unless this item is correctly set, connection may fail.
Click this button to resister.
Use more than one port forward.
Default User
Local IP Address
192 168 0 100
- This setting is necessary for the DVR connected under the Portofowarded environment to specify the DVR correctly
root
****
Refer to Section 4.1.
* Attach a check only to the check box for the camera which you want to register.
Enter the name of the recorder which you want to register. Choose a name with which you can identify the recorder easily. If the camera name is registered in the recorder main body, directly importing with Camera Import of the recorder list edit button is possible (Refer to Sec. 3.2.2).

5.3.2 Connecting network to an arbitrary recorder

In order to connect to an arbitrary recorder, select a desired recorder from the recorder list (refer to Sec. 3.2.6) on the MainView screen and attach a check to the Connection Check Box.



As the Recorder Login dialog (figure below) is displayed, enter the user name/password which are registered in the recorder and click the OK button.



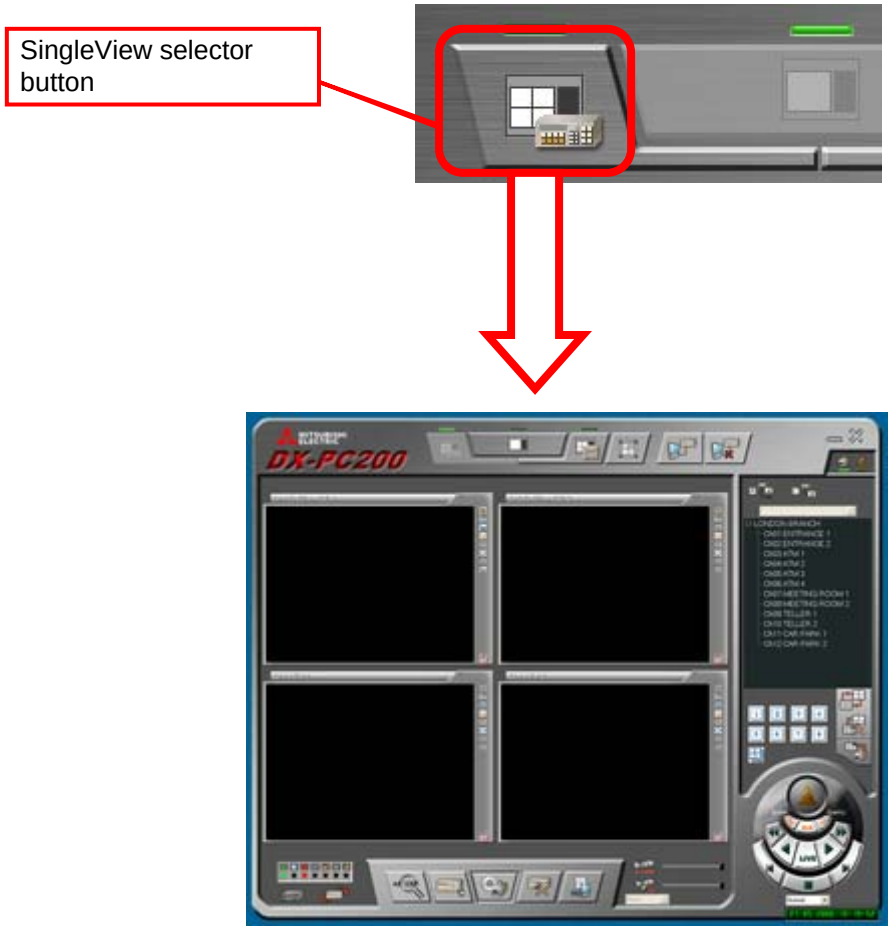
Two users, root/admin000 and guest/guest, are registered as the default in the recorder. A root user holds almost all right in relation to the recorder. A guest user can obtain only the live image.

As for management or right regarding addition/change/deletion of registered users, refer to Section 4.3. When the default user of Section 4.1 is set, connection can be made automatically without entering a user's name and a password.

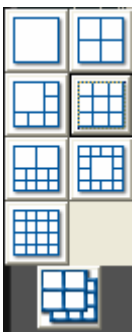
When connection to the recorder is completed, the recorder status lamp (refer to Sec. 3.2.6) of MainView lights up in conformity to operation status of the recorder.

5.3.3 Changing display to the SingleView (MultiView) screen

With a click on the selector button of the SingleView screen of the MainView screen, go to the SingleView screen or the MultiView screen. When the screen goes to the SingleView screen, renewal of the live images of 4 screens starts automatically.



5.3.4 Changing the screen layout



As for the DX-PC200, 7 types of basic layouts are available. When the Basic Layout button below the Grouping button is clicked, the Basic Layout icon appears. With a click on the desired layout, the screen layout changes.

Keep in your mind that one row of layout icon patterns may be added at the bottom only in the case of the MultiView screen.

5.3.5 Changing the displayed camera

In order to change the camera image displayed in an individual Camera window, drag a desired camera from the camera list at the right of the screen and drop it in the Camera window where you want to change the display camera. Not only you can change the display position among cameras in display, but you can also display a non-displayed camera (in gray characters) by setting the camera list to the All Camera display mode.

When the dropped window is in live, the live operation is continued. When the dropped window is in recorder image display, the recorder displaying operation is continued.

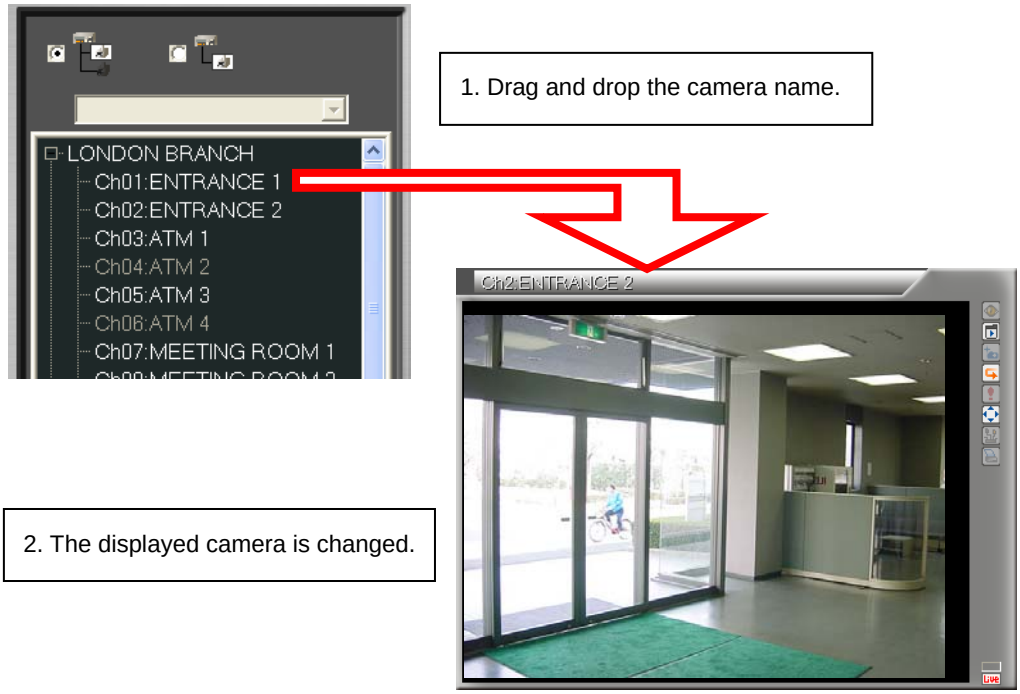


Image quality of the displayed image and speed are adjusted from the Camera Window panel (refer to Sec. 3.3.2). Use the control area in Section 3.3.5 to adjust all the displayed cameras simultaneously.

Notice

In DX-TL2500 series recorders, recorded images are transferred at the picture quality level applied when those images were recorded. You can't change this picture quality level. Even in DX-TL5000 series recorders, you can't improve the picture quality of the image that was recorded at a low picture quality level.

Regardless of the picture quality, you can adjust the image refresh speed using the refresh speed slide bar. This slide bar adjusts the interval of loading images. The larger this interval is, the less the restrictions become on the communication band to be used and the load applied to the recorder.

When the recorder’s communication operation is unstable or the network band is insecure, reduce the refresh speed. When a PC to be used does not have sufficient processing power, reduce the refresh speed.

5.3.6 Starting the live operation with other method

In addition to the procedures mentioned above, you can start live monitoring by directly moving to the SingleView screen by double-clicking the line for a recorder which you want to view on the SingleView screen.

5.5. What you can do during the live monitoring operation

The following functions can make live monitoring more effective when used during the live monitoring operation.

- Scene capture (Sec. 4.10.2)
- Recent play (Sec. 4.10.3)
- NET alarm record (Sec. 4.10.4)
- PTZ (Sec. 4.10.5)
- MODEOUT (Sec. 4.10.6)
- Printout (Sec. 4.10.7)
- Live sound

5.5.1 Listening to live sound

In some latest models such as DX-TL4516E, you can listen to live sound through the network function.

On the SingleView screen, select the desired sound channel from the dropdown menu at the lower right of the image displaying area. The slide bar in the dropdown menu serves to determine buffer volume of the sound data. The shorter the set level is, the smaller the deviation between the image and sound becomes. However, excellent network environment and low-load recorder condition are always required. Adjust this according to your operating environment.

On the MultiView screen, these controls are included in the Camera Window panel. By deploying to the right, the same sound control is provided in the 3rd panel.

Notice

When band control is being applied to the recorder, ample communication band is not secured, or internal processing with heavy load (such as recording, copying, motion detection by the recorder) is underway, it may be impossible to load clear live audio. Further, the PC's capacity may affect loading of live audio. In these cases, secure the communication band by disconnecting some recorders, slowing the image refresh speed (Sec. 3.3.5), or reducing the image quality (Sec. 3.3.5). When the PC's capacity is not adequate, decrease the decode level (Sec. 3.3.2).

5.6. Searching for a desired image from the image data stored in a recorder

Vast amounts of image data are recorded in the recorder. Use the following methods to search for the desired data.

- Search by time (Sec. 4.2.1)

  This serves to search for the desired image by date and time. Search through the network function using the DX-PC200 may not hit successfully. (In the case of the excessively vast amount of record data).

- Search by alarm list (Sec. 4.2.2)

  In the case of the image recorded as an alarm, you can search by using the alarm list which the recorder controls.

- Search by protection data (Sec. 4.2.4)

  Some models after DX-TL5000 are provided with the protection data function. This function serves to search for the recorder data in the protected section.

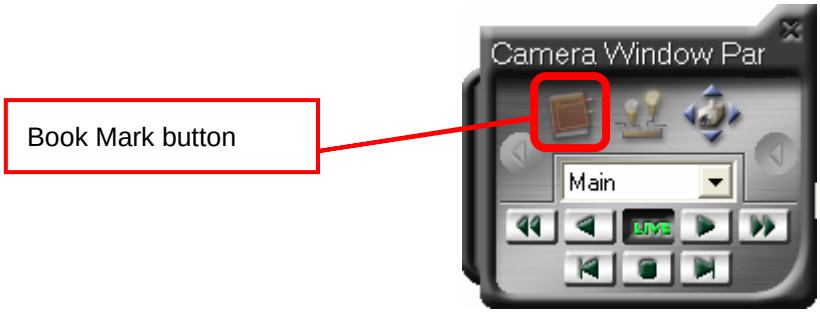
- Search by book mark (Sec. 4.2.3)

  By registering the book mark not in the recorder but in the DX-PC200, you can search from that list.

5.6.1 Registering a book mark

During searching and playing back, when you come across images which you think “important” or “worthy checking again”, you can register those images in the book mark.

When the book mark button of the Camera Window panel is clicked in the status in which the recorder image is displayed on the screen, you can store the type of camera and time of image creation in the DX-PC200 as the book marks. These book marks are separately stored in each recorder and these marks are stored after the DX-PC200 is closed.



The book marks thus registered can be searched by the book mark search in Section 4.2.3.

5.7. Storing images obtained from a recorder in a PC and printing

<How to store>

With a click on the Scene Capture button adjacent to the Camera window, the image displayed there is stored in the PC.

The image data is stored in the cap_img folder in the MyDocuments as default. The name of the image data is “L_recorder name_camera number_date time_two digits number.bmp” as default. (“L” on the top is changed to “P” in the case of playback image.) The recorder name and the camera number can be replaced respectively with “non-displayed” and “camera name”. In addition, the image format for storage can be selected from Bitmap and JPEG. To change settings, open the optional setting from the MainView screen and add a change with the scene capture (refer to Sec. 4.7.4).

<How to print>

With a click on the Print button adjacent to the Camera window, the image displayed there is printed by the printer.

On the printed image, the current PC time is also printed in the case of the live image, and the current recorder time in the case of the recorder image. In addition, the recorder name, camera channel, camera name, and comment entered at the time of printing are also printed together.

As for the detailed information on margin adjustment and other settings, refer to Section 4.10.7.

5.8. Taking out image data outside

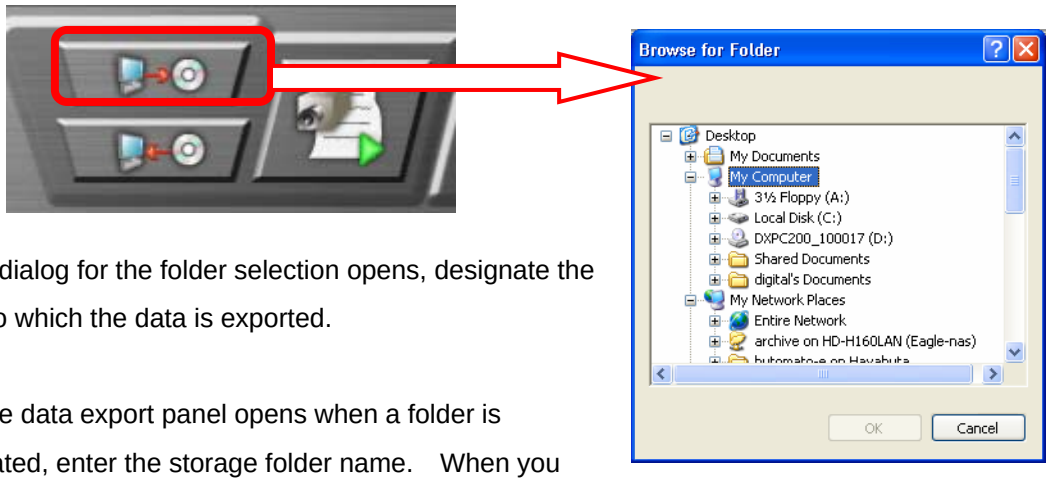
There are 2 methods available to take out the images recorded in a recorder and carry them outside.

1. Store them in an image data sheet in the scene capture (refer to Sec. 4.10.2).
2. Export the continuous image data which has been section-downloaded.

In addition, playing back the image data under control of the DataManager, you can store them in Bitmap or JPEG or, can store by converting to AVI. As for the detailed method, refer to Section 6.3. In this section, the procedure of data export is explained.

<Export the computer data under control of DataManager>

The DataManager manages, in its original method, the continuous image data which have been section-downloaded. Use the data export function so that you can carry them outside. Selecting, from the list, the data which you want to export by using the data list tab of the DataManager, click the Data Export button.



As a dialog for the folder selection opens, designate the folder to which the data is exported.

As the data export panel opens when a folder is designated, enter the storage folder name. When you attach a check to Copy Player, you can bundle the data viewer software into this folder. With a click on the Export Start button, export starts.

5.9. Receiving IP AlarmNotify of the recorder

With the DX-PC200, you can be notified of occurrences of events on the PC by utilizing IP AlarmNotify from the recorder. In addition, you can confirm the event on a displayed list and search for the recorder image at the corresponding time as required.

In order to utilize this function, you need to add a setting to the recorder so that IP AlarmNotify is performed. The DX-PC200 can receive and display IP Alarm Notification without specific setting. Setting to delete unnecessary IP AlarmNotify items is also possible.

5.9.1 Setting IP AlarmNotify of the recorder

As for a recorder to enable IP AlarmNotify, you can set a menu as a part of network setting. Major items which require setting are as follows:

- IP address of the PC which issued IP AlarmNotify: Several receivers of IP AlarmNotify can be set in the major models of recorders.
- Receiving port of the PC which issued IP AlarmNotify: Except for special occasion, you are recommended to use the default value. In order to change this value, you need to change the receiving port setting (refer to the following section) of the receiver PC.
- Item of AlarmNotify: Sorting of items and the number of items are determined by the recorder model. For detailed information, refer to the recorder instruction manual or contact our distributor.
- Retry interval: Set time intervals for retry.

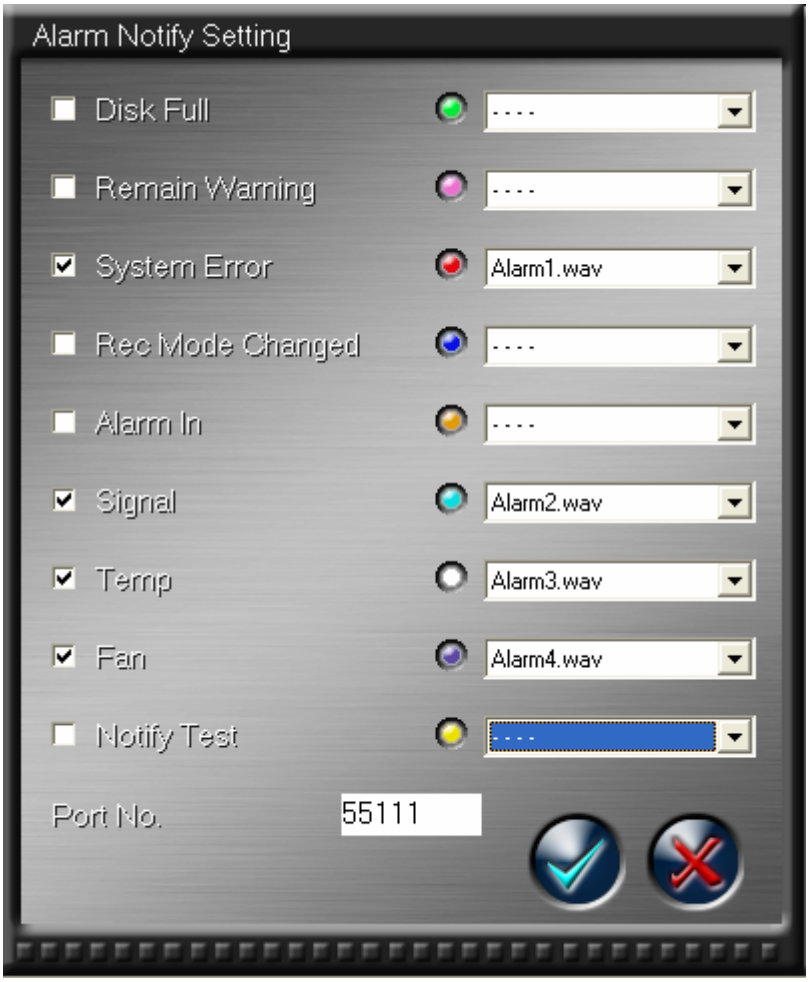
In principle, setting is required only for IP address to issue IP AlarmNotify and notified items. However, some recorder models require other setting items. In addition, setting the default gateway is also required if a network is different.

5.9.2 Setting IP AlarmNotify receiving filter and alarm sound

When the DX-PC200 is installed, the receiving module (DataManager) resides permanently in the task tray. The icon for the receiving module is shown below.

Right-clicking the task tray icon and clicking “AlarmNotify Setting” of the menu, you can open the setting panel for receiving. When “Exit” is selected, the receiving module exits, and neither content display nor list registration is performed even if AlarmNotify is received. When you need to make the receiving module reside permanently, start the DX-PC200 and click the DataManager button in the lower section of the MainView screen or the SingleView screen.

The DataManager screen is displayed and at the same time residing in the task tray starts. Even if the DataManager screen is closed with the x button in this state, residing in the task tray is not released.



This panel serves to segmentalize the contents notified from the recorder and acknowledgment to users (Display on the PC screen and alarm sound).

Among the received AlarmNotify information, only the information checked in the left check boxes are indicated on the event list and are informed to the PC users on the screen (refer to the following section).

Colors of the right lamps serve to identify each event content in the event list.

The alarm sound produced at the time of receiving is selected from the dropdown list at the right end. When you want only the screen display, select “----“.

The port number at the bottom end is set to receive AlarmNotify information. Use the default if no inconvenience exists. To change this setting, you need to also change setting of the AlarmNotify issuing port (refer to the previous section).

5.9.3 Receiving IP AlarmNotify

When an event worthy of notification occurs on the recorder and IP AlarmNotify is sent to the PC installed with the DX-PC200, two types of information are informed according to current status of the PC.

<When DX-PC200 is not active>

The massage with a button below is displayed near the task tray.

The date/time of receipt of AlarmNotify and its content are displayed.

If you need to immediately check the recorder where an event has occurred and its recorder image, click the “Connect” button on the right to start the DX-PC200.

After being displayed for 10 seconds, this message on the screen is automatically erased.

<When DX-PC200 is active>

During use of any View, the alarm bell icon blinks to indicate receipt of an event notification.

With a click on the bell icon, you can stop blinking. At the same time, the camera list on the SingleView/MultiView screens is changed to the event list.

Even during full screen monitoring, the bell icon is displayed to indicate receipt of an event.

5.9.4 Confirming the recorder image at the time of AlarmNotify event

With a double-click on the item line of the event list, you can call the recorder image of the recorder at the time when that event has happened. When the Time Search panel in which event time has been set in advance opens, confirm the time and click the Search Execution button.

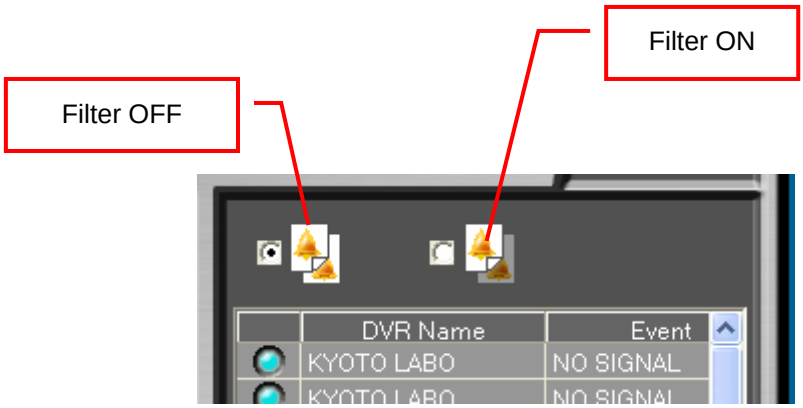
Notice

Keep in your mind that a search failure occurs or an image from a far distant time may be displayed when no recorder image exists for the event.

5.9.5 Adjusting the event list display (Filtering)

Display of the event list can be adjusted using the filtering function. All kind of filter settings such as refining into one event from one recorder or into one event of a specific date are possible. Refer to Section 3.2.4 for the filter setting method.

ON/OFF of the set filter can be switched with the radio button on the event list.



6. Playing back the copy data

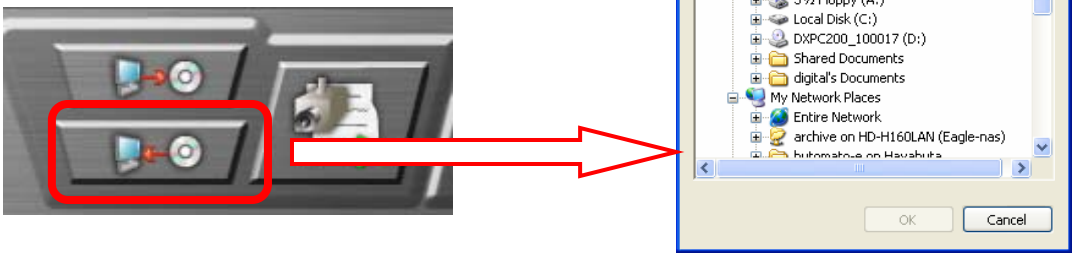
The DX-PC200 can play back, by using the designated viewer, data which are directly copied to a copy media such as a DVD-R and USB memory, or data which are copied from a recorder through network by section-downloading.

6.1 Placing copy data under control of DataManager

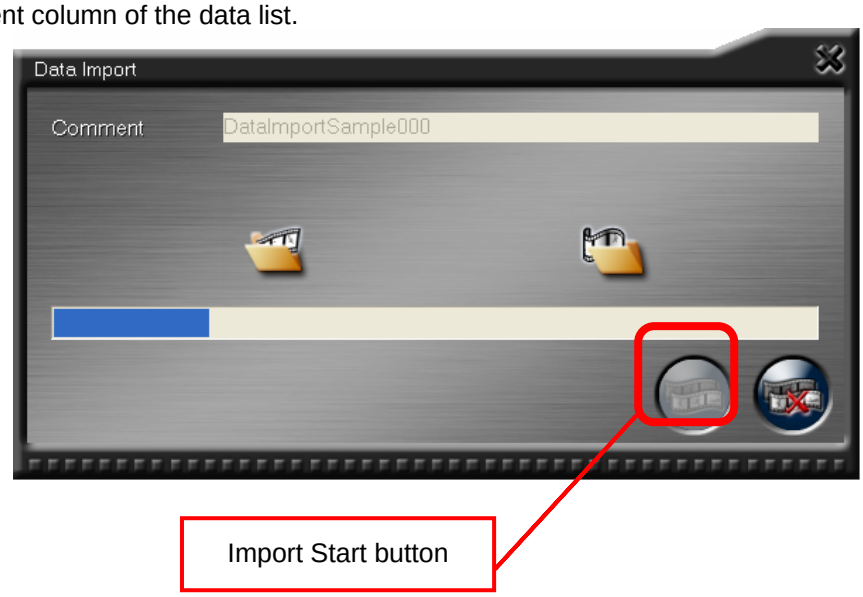
Recorder image data of the recorder obtained by section-downloading are controlled in the data list tab of DataManager. Recorder image data which are directly copied from the recorder to an external medium are first read by the PC and then can be played back by being placed under control of DataManager.

In order to place data copied to an external medium or to an HDD of the PC under control of DataManager, use the data import function of DataManager.

By starting up DataManager and clicking the DataImport button, you can open the dialog to select a folder.



When you designate a folder of the recorder image data which you want to import, the data import panel opens. If a comment has been added in the data import panel, it is also displayed in the comment column of the data list.



6.2 Playing back copy data

Selecting, from the list, the copy data which you want to play back with the data list tab of DataManager, click the Data Playback button.

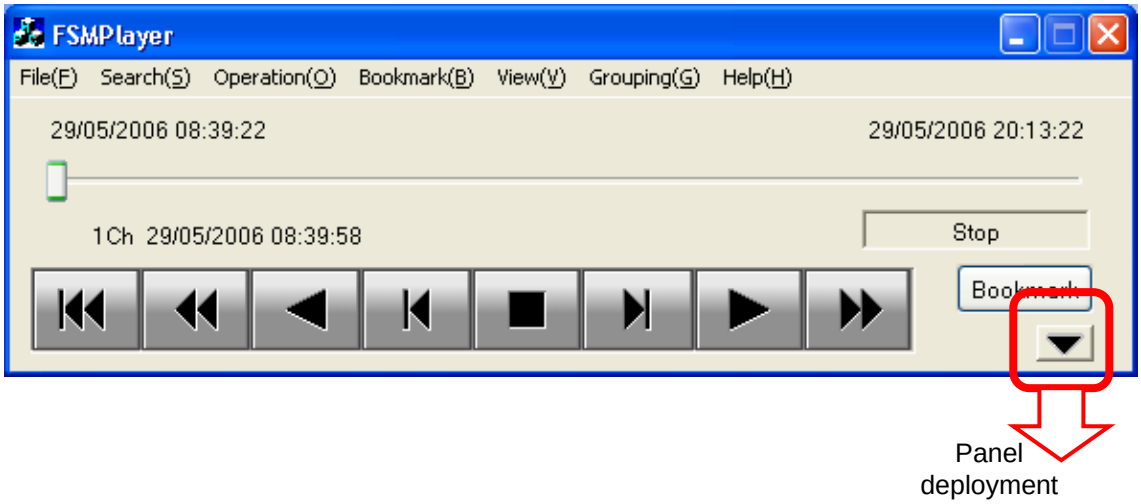
The viewer software for data playback starts up and stands by in the status where the data is read. After that, only with the Playback button being pressed, data playback starts.

Detailed procedure of the viewer software (FSM Player) is described in the following sections.

6.3 Copy data viewer function (FSM Player)

When copy data reading is completed, click the Playback button of the FSMPlayer panel. A necessary Camera window is added and playback starts. The buttons related to playback are “Beginning”, “Fast reverse playback”, “Reverse playback”, “Reverse frame advance”, “Stop”, “Playback”, “Frame advance”, and “Fast playback”, as arranged from the left.

With a click on the ▼ button at the lower right, this panel is deployed into 4 stages. In the first stage, operations of various playbacks/searches/book marks are performed. In the second stage, the Camera window is selected. In the third stage, playback speed is adjusted. In the forth stage, sound playback and related matters are set.



6.3.1 Playing back audio data

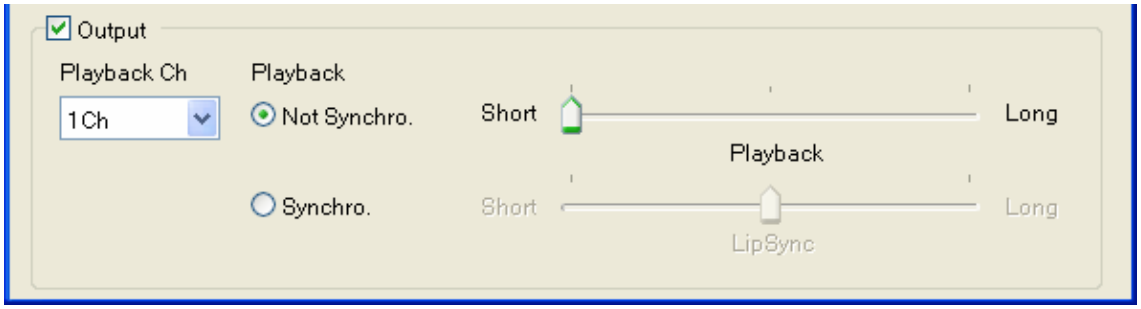
You can play back audio data contained in the copied data using the following procedure.

【Not Synchro. playback】

Put a checkmark to [Output] on the FSMPlayer panel and select a playback channel from the drop-down menu. Then select [Not Synchro.] in the [Playback] field. Play back the copied data and stop at a point where you want to hear the audio. The audio data around the stop point are played back. You can change the duration of audio playback in 3 levels using the slide bar on the right side. The actual duration of audio playback varies depending on the frame rate of the recorded image. Adjust the duration for every data to be played back.

【Synchro. playback】(Applicable only to some models)

Select [Synchro.] in the [Playback] field. You can play back simultaneously the audio and image of the data downloaded in blocks via network or the data copied together with audio by a recorder. Only one playback channel is displayed in this case. Audio will not be played back during other than normal playback (such as fast-forward playback and reverse playback). The [LipSync] slide bar should be adjusted according to the PC to be used and the recording status of data to be played back. In some cases, there may not be found an optimum position where the image and audio synchronize with each other.



Notice

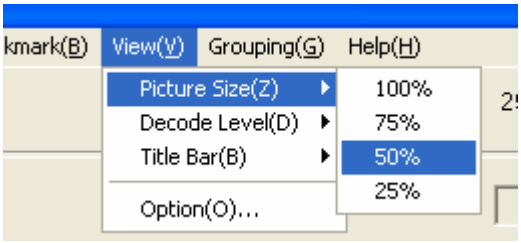
- ・Some items are not displayed or operated depending on the type of recorder used for recording.
- ・In Synchro. audio playback, the frequency of image refreshing is reduced depending on the processing power of PC. When you want to playback giving priority to image, select [Not synchro.].
- ・The settings on this panel remain intact for the next startup.
- ・Audio playback channel and image display channel are not related. You can play back them in any combination.
- ・When data are played directly from a drive that is slow to read CD and DVD, audio may be output intermittently. Play back data after copying it to a HDD.

6.3.2. Adding a bookmark to copied data

Click [Save with the bookmark] in the [Bookmark] menu. You can register the point currently played back as a bookmark. By clicking [A] and [B] in the [Bookmark] menu, you can register the points being played back as points A and B for A–B repeat playback. For A–B repeat playback, put a checkmark to [Repeat between A and B] in the [Bookmark] menu. Bookmarks are retained by this software.

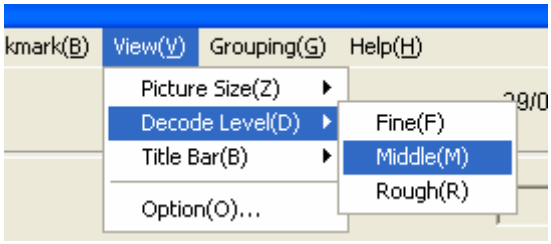
6.3.3. Changing the size of the copied data playback windows

To change the size of the camera windows, use the [Picture Size] command in the [View] menu. This command takes effect over all the camera windows. To change the size of one camera window alone, select the camera window by right–clicking on its image display area and use the [Picture Size] command in the [View] menu. Alternatively, you can change the size of the window arbitrarily by dragging its edge.



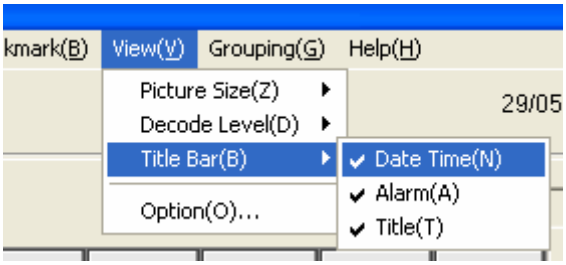
6.3.4. Changing the picture quality applied in playback of copied data

To change the picture quality, use the [Decode Level] command in the [View] menu. Use this function to give priority to playback speed over the picture quality when you play back copied data on a PC having insufficient capacity. This command takes effect over all the camera windows. To change the picture quality of one camera window alone, select the camera window by right–clicking on its image display area and use the [Decode Level] command in the [View] menu.

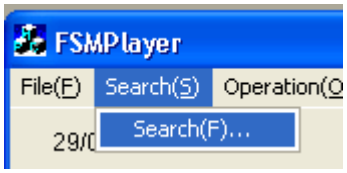


6.3.5. Displaying the recording date and alarm on the copied data playback window

To select items you want to display on the window, use the [Title Bar] command in the [View] menu.

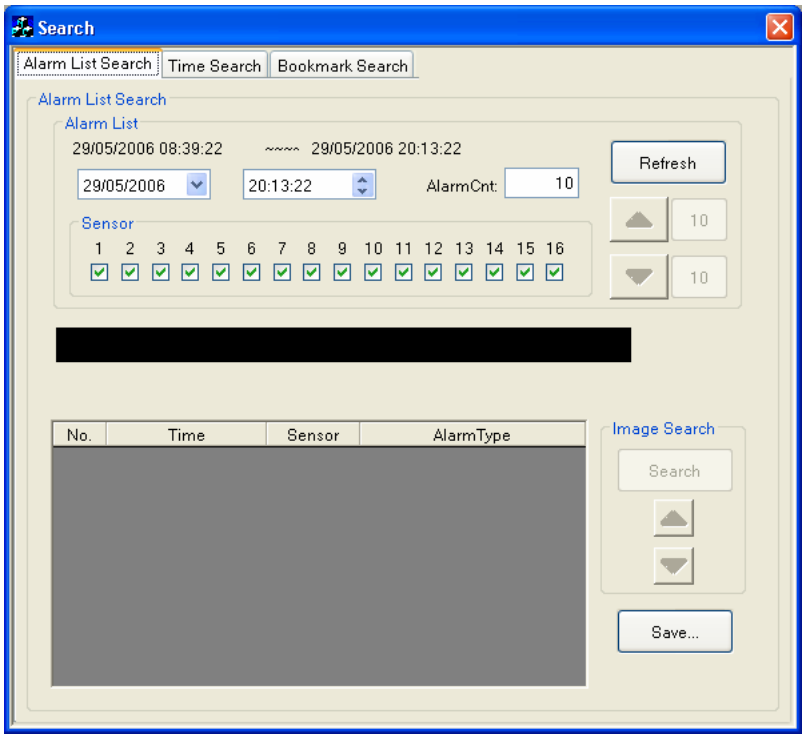


6.3.6. Searching for an image



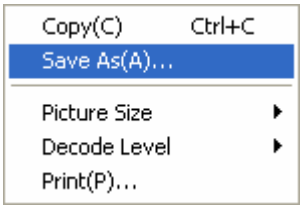
Click [Search...] in the [Search] menu on the FSMPlayer window.

The following search window appears. You can search for copied data using [Alarm List Search], [Time Search], or [Bookmark Search] on this window. For detailed search procedure, refer to Sec. 4.2.1 and 4.2.2 on page 21 and Sec. 4.2.3.



6.3.7. Saving the currently displayed image

Right-click on the image display area and click [Save As...] in the menu.

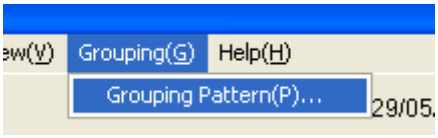


6.3.8. Printing the currently displayed image

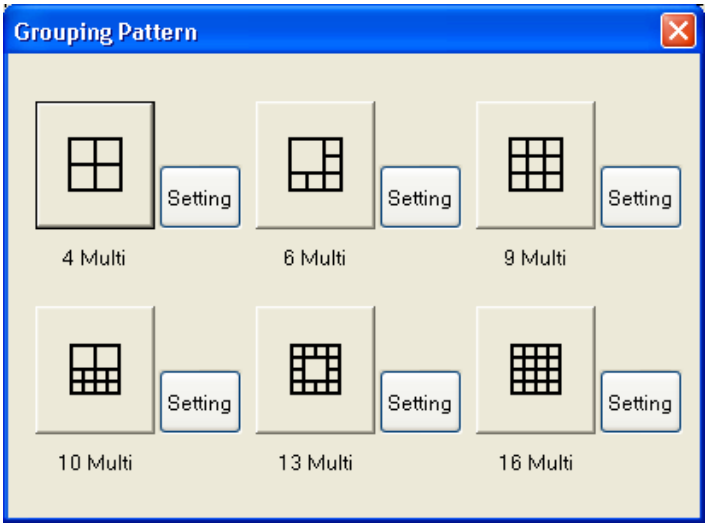
Right-click on the image display area and click [Print] in the menu.

6.3.9. Calling layouts of camera windows that display copied data <Grouping function>

Click [Grouping Pattern...] in the [Grouping] menu.

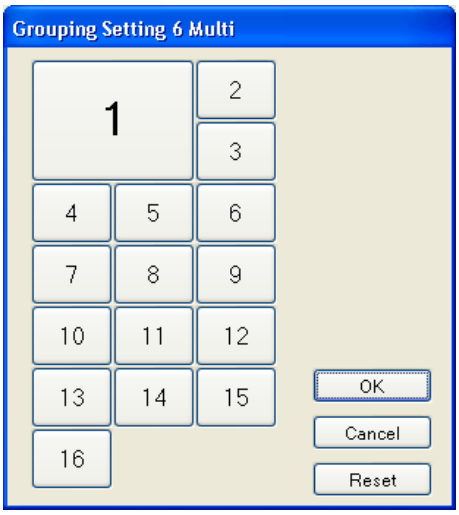


The Grouping Pattern dialog box appears. Select and click any pattern.



When you click the

buttons on the right of the pattern buttons, the grouping setting dialog box appears. Using this dialog box, you can change the cameras displayed on respective windows. Click a window position to select a camera you want to display in that position.



6.3.10. Option settings

Click [Option] in the [View] menu. The following Option dialog box appears.

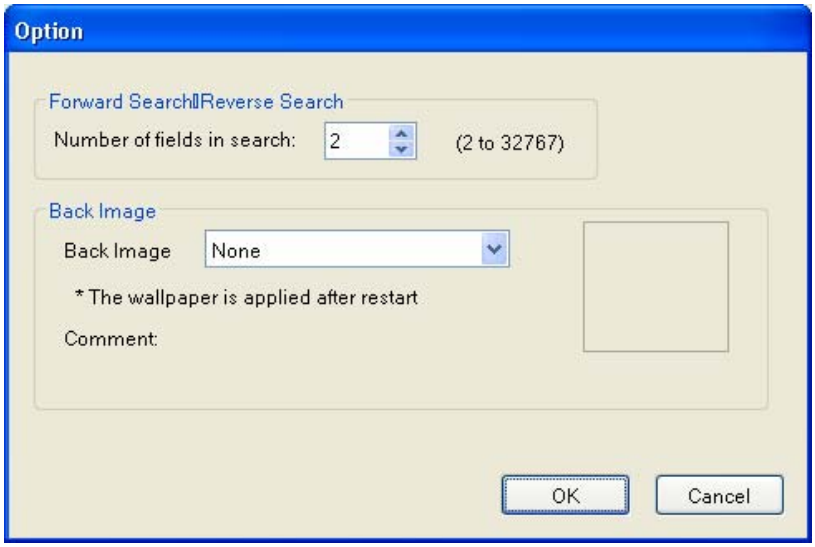
You can set following three options using this box.

1. Number of fields skipped in Field Advance or Field Reverse

   You can change the number of fields skipped in Field Advance or Field Reverse. For details, refer to Sec. 4.7.2.

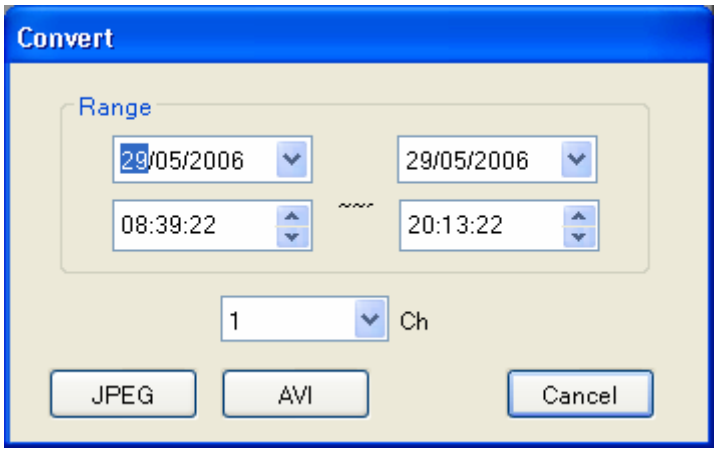
2. Background image

   You can change the background image.



6.3.11 Converting the format of the copied video data collectively

You can convert the formats of the copied video data into general formats such as JPEG and AVI collectively. Click [Convert] in the [File] menu of FSMPlayer.



Specify the range of data you want to convert collectively by date and time and camera number, then click the [JPEG] or [AVI] button.

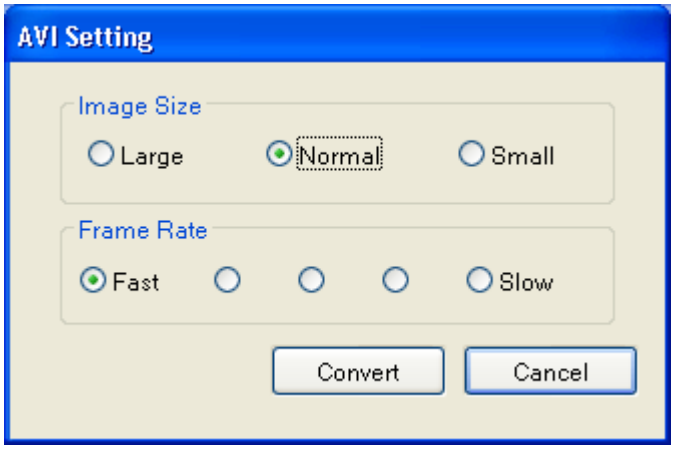
＜Converting into JPEG format＞

Click the [JPEG] button on the [Convert] dialog box. A dialog box appears to select a directory to save the converted files to. When you click [OK] after specifying the directory, collective conversion starts and a dialog box appears showing the progress.

When the collective conversion completes, a message appears notifying of the completion of the conversion.

＜Converting into AVI format＞

Click the [AVI] button on the [Convert] dialog box, to display the following AVI Setting window.



When you specify the image size and frame rate and then click [Convert], a dialog box appears to select a directory to save the converted files to. Specify the directory and click [Save]. Conversion starts and a dialog box appears showing the progress. When the conversion completes, a message appears notifying of the completion of the conversion.

7. Appendix

7.1 Restrictions

- ・Functions supported by this software depend on the type of your Mitsubishi digital recorder. For models supported by this software, refer to the section of "Compatible digital recorders" in this manual.
- ・If an operation problem should occur and you can't locate the cause of such problem in Mitsubishi digital recorder or this software, other component equipment, cables, application software, or operation system, then diagnose the problem by directly connecting Mitsubishi digital recorder to the personal computer containing this software and the specified operation system using the specified devices (or equivalents thereof unless use of such equivalents is questionable).
- ・The image refresh speed of this software depends on the CPU performance of your personal computer and playback devices to be used. (The image refresh speed is affected by the network load during communication.) Therefore, the playback speed of this software may be inconsistent with the recording interval of the digital recorder.
- ・Media containing recorded data out of sequence may not be played back properly.
- ・The search functions may not work correctly depending on the recording condition of the searched media.
- ・Images or characters may not be printed correctly depending on the printer or printer driver to be used.
- ・This software occupies a large amount of memory to display or develop a lot of images. Don't run this software with other application programs at the same time.
- ・The picture quality reproduced by this software depends on the picture quality settings applied at the time of recording by the digital recorder, except when image sizes other than 100% are selected.
- ・When the digital recorder is used in combination with other network device on the network containing this software, this software may not able to perform as specified. In such cases, divide the network.
- ・While any of the menu screens or on-screen display items of the digital recorder is being displayed on the monitor, you can't load data from the digital recorder correctly. When loading data, keep the menu screens and on-screen display items off.
- ・Some items on the menu screens of the digital recorder can't be disabled via network.
- ・If it takes longer than 30 seconds for the digital recorder to search for an image internally via network, such image may not be loaded.
- ・If the data loading process via network is unstable, decrease the data transfer speed using the

refresh speed slider on the camera window panel.

- · If the network function is used while images are being searched on the digital recorder's side, the search may be interrupted. In addition, if images are searched on the digital recorder's side while the network function is in use, the search may be interrupted.
- · The specifications of this software are subject to change without notice.